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ABSTRACT

The purpose of this paper was to construct, refine, and test a measure of adolescent peer susceptibility. Current conceptualizations of peer susceptibility largely are one dimensional and include at most one or two domains of psychosocial functioning. In addition, most assessments of peer susceptibility are situation- or behavior-specific, thus limiting their generalizability. These problems and concerns seriously limit our understanding of the precise psychosocial mechanisms through which peer relations influence adolescent identity formation. For the present student, adolescent focus groups provided self-generated, open-ended responses to yield an ecologically valid framework for constructing self-report items assessing peer susceptibility. Analysis of the data indicated that peer susceptibility is multidimensional and consists of seven dimensions reflecting conformity self-efficacy; personal control; decision-making skills; self-derogation; social comparison; social confidence; and assertive skills. Multiple group comparisons indicated that males and females differed significantly in the magnitude of the relation between social and cognitive susceptibility. Implications highlight the use of a theoretically guided, psychometrically valid and reliable assessment of peer susceptibility for screening highly vulnerable youth where indicated. Appendixes include: Sample Prompts Used in Focus Groups, Introductory Statement Read to Participants, Adolescent Peer Susceptibility Scale, and Summary of Statistics and Psychometric Properties for Adolescent Peer Susceptibility Items. (Contains 4 appendixes, 2 figures, 9 tables, and 92 references.) (Author/JDM)

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THE DIMENSIONAL STRUCTURE OF EARLY ADOLESCENT PEER SUSCEPTIBILITY

A Dissertation

Submitted to

the Temple University Graduate Board

in Partial Fulfillment

of the Requirements for the Degree

DOCTOR OF PHILOSOPHY

by

Paul Andrew Kosten

May, 2000

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ABSTRACT

THE DIMENSIONAL STRUCTURE

OF EARLY ADOLESCENT PEER SUSCEPTIBILITY

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Doctor of Philosophy

Temple University, 2000

Doctoral Advisory Committee Chair: Dr. William Fullard

Adolescence is a period of development characterized by rapid emotional, physical, cognitive, and social growth. A cornerstone of adolescent development is the construction of a crystallized identity that prepares individuals for adult role socialization. Important milestones related to identity formation include establishing educational goals, clarifying vocational choices, and building secure interpersonal relations. Failure to construct an adequate sense of self can engender role confusion, disrupt normative socialization, and lead to problems in living. An important vehicle for obtaining a positive identity and establishing independence from parental influence involves secure and meaningful peer relations. During adolescence, peers represent an effective means to conduct social comparisons and to gauge personal growth. Many developmental theorists suggest that delinquency, substance use, and mental health problems originate from poor, inadequate, and insecure peer relations. Thus, it is important to more fully understand the developmental mechanisms underlying peer relations and susceptibility to peer influences during the early portions of adolescence.

The purpose of this dissertation is to construct, refine, and test a measure of adolescent peer susceptibility. Current conceptualizations of peer susceptibility largely are unidimensional and include at most one or two domains of psychosocial functioning. In addition, most assessments of peer susceptibility are situation or behavior-specific, thus limiting their generalizability. These problems and concerns seriously limit our understanding of the precise psychosocial mechanisms through which peer relations influence adolescent identity formation.

For the present study, adolescent focus groups provided self-generated, open-ended responses to yield an ecologically valid framework for constructing self-report items assessing peer susceptibility. These responses provided a basis from which to construct and validate a 68-item, self-report, paper-and-pencil assessment. Latent variable, confirmatory factor analysis of data obtained from a sample of 772 middle school youth indicated that peer susceptibility is multidimensional and consists of seven dimensions reflecting conformity self-efficacy, personal control, decision-making skills, self-derogation, social comparison, social confidence, and assertive skills. Based on the associations among these primary factors, a second-order structure posited two moderately related dimensions reflecting Cognitive and Social Susceptibility. Cognitive Susceptibility taps personal self-evaluation, personal control, and decision-making skills, whereas Social Susceptibility reflects interpersonal mastery, social comparison, and social confidence (i.e., social efficacy). Multiple group comparisons indicated that males and females differed significantly in the magnitude of the relation between social and cognitive susceptibility. Implications highlight the use of a theoretically-guided,

psychometrically valid and reliable assessment of peer susceptibility for screening highly vulnerable youth where indicated.

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I would like to dedicate this research to the students from the 1998 graduating class at Ventnor Middle School. Without their inspiration, support, and trust it is likely that adolescent peer susceptibility would continue to be poorly defined and grossly misunderstood.

To my chairperson, Dr. William Fullard, I extend a deep sense of appreciation and gratitude for his inspiration, theoretical guidance, mentorship, and patience. Dr. Fullard is an especially gifted and talented advisor and a deeply respected friend. Dr. Lawrence M. Scheier served as co-chair for this dissertation and he deserves an enormous debt of gratitude, respect, and admiration for his theoretical insight and provision of statistical expertise. Dr. Scheier extended his professional acumen by reading and editing the dissertation and furthered my own education to include a much deeper and richer understanding of the problems associated with constructing and refining psychological assessments.

I owe a deep debt of gratitude, love, and admiration to Karen Williams-Kosten who unconditionally supported me during the years I constructed and completed this work. Her compassion and deep respect made it possible for me to surmount professional and personal obstacles in order to gain closure on my own uneven landscape. To our truly collaborative products, Dylan and Ian, I can only apologize for having to expose them to the unpredictable nature of academia and hope they can catch a glimmer of discipline from these worthwhile and erudite pursuits.

Lastly, to Ralph Waldo Emerson who initiated my interest in the subject of susceptibility by writing, "Whoso would be a man must be a nonconformist" (Emerson, 1889, p. 56) and "For nonconformity the world whips you with its displeasure." (p.63). To this I add only that conformity may be the bane of our individual and collective existence, but it plays a very limited part in determining our vulnerability to life's interpersonal vicissitudes.

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CHAPTER 1

INTRODUCTION

The Problem

Peers represent important sources of influence affecting adolescent development. Most important, many youth evaluate the success of their behavior against normative standards established by their peers. Maintaining positive peer relations is an essential foundation for adolescents to acquire skills requiste for making a successful transition to adulthood. Adolescents actively seek the presence of peers to conduct social comparisons and conduct personal evaluations that influence multiple areas of functioning. Oftentimes, youth will gain social approval through peer relations and this can have a protective function with respect to social adjustment and adult role socialization.

Because peers play such an important role in development, much research has examined peer influences on pro- and antisocial behavior (Rubin, Bukowski, & Parker, 1998). Despite the importance of these and related studies, methodological and conceptual problems have hampered our ability to establish valid and substantively meaningful self-report assessments of peer susceptibility. For instance, a great deal of research has operationalized peer susceptibility based on unidimensional formulations that are behavior-specific. Accordingly, assessments of peer susceptibility have largely been structured to examine involvement with delinquent peers or focus exclusively on dimensions of social assertiveness and social conformity. From a conceptual perspective, few studies have relied on developmental theories to inform the construction

of a psychometrically sound assessment of peer susceptibility. Important areas of development that should be addressed in this regard include: self-efficacy (Bandura, 1977), social competence (Waters & Sroufe, 1983), self-derogation (Kaplan, 1980) (i.e., self-worth), and the social psychological processes underlying identity formation (Erikson, 1968; Seltzer, 1989).

In addition to concerns regarding theoretical development, there is no clear consensus regarding operational definitions applied to peer susceptibility. For instance, few studies differentiate between peer pressure [e.g., "when people your own age encourage you to do something or to keep you from doing something else, no matter if you personally want to or not" (Clasen & Brown, 1985)], conformity [e.g., "the willingness to conform to peers" (Brown, Clasen, & Eicher, 1986)], and susceptibility to peer pressure (e.g., Dielman, Campanelli, Shope, & Butchart, 1987). In many of these and related studies, researchers operationalized peer susceptibility based on measures of substance use, tolerance of deviance, and antisocial behaviors. Consequently, little is known regarding positive peer social influences and their role in socialization and peer susceptibility.

Furthermore, most assessments of peer susceptibility have been developed and written for elementary age (e.g., third to fourth grade) or late adolescent (i.e., high school and college) populations. This may represent an important oversight because heightened susceptibility to peer social influences can occur mainly in the years intervening between early childhood and early-late adolescence (Brown, 1990). Thus, existing assessments

may not provide a developmentally valid picture of the psychological mechanisms underlying peer susceptibility.

Finally, most studies have relied on exploratory factor analysis to establish the dimensional structure of peer susceptibility. Different rotational procedures and extraction methods can contribute to varying interpretations regarding the psychometric structure of peer susceptibility (i.e., factorial validity). Recent advances in confirmatory factor analysis techniques make it possible to evaluate statistically the fit of a hypothesized factor structure against sample data and avoid these interpretational difficulties (Bentler, 1995).

Purpose of the Study

The purpose of this study is to construct a theoretically-driven, psychometrically sound assessment of early adolescent peer susceptibility and to examine its' dimensional structure using latent variable confirmatory factor analysis (CFA). Major developmental theories that guide the development of an instrument to measure peer susceptibility include social comparison (Festinger, 1954) and social learning theory (Bandura, 1977).

Relevant Theory

Social comparison theory (SCT: Festinger, 1954) provides a social-psychological framework from which to understand adolescent peer relations. As part of identity formation, adolescents evaluate the self and use peers as a comparative standard. Social comparison theory suggests that humans have a drive or need to evaluate their abilities and opinions with similar others that represent a referent group. SCT also suggests that as similarity increases and attraction to the group grows, an individual's drive for

comparisons increase. When objective criteria are unavailable for social comparison, the peer group represents an external objective standard for making social comparisons. Peer social comparisons help the adolescent to gauge their cognitive, emotional, physical, and social success by providing comparisons with a group experiencing similar developmental tasks. A number of empirical studies underscore the utility of SCT to understand adolescent development and the importance of peer relations (Erwin, 1993; Ruble, 1983; Suls & Wills, 1991; Wood, 1989). One manifestation of a youth's drive to self-evaluate with peers is social conformity. Conformity represents a psychological mechanism to obtain social approval and enhance positive self-evaluations. Conformity arises as a direct result of comparisons between the self and the peer group. Conformity also may serve to protect the adolescent against social disapproval, self-derogation, and social rejection (Arkin, 1981; Kaplan, 1975; Seltzer, 1989).

Because conformity represents an important means of gaining social approval, it is logical to examine adolescents' confidence to conform when exposed to peer influences. Bandura's model of self-efficacy (1977) articulates a theoretical framework to account for conformity to peer pressure. Bandura defined self-efficacy as "the conviction that one can successfully execute the behavior required to produce outcomes" (p.193), and as "beliefs in one's capabilities to organize and execute the courses of action required to produce given attainments" (Bandura, 1997, p. 3). Accordingly, conformity self-efficacy is defined as the perceived confidence to conform to peer influence. In turn, self-efficacy beliefs influence future actions and may be responsible partly for determining the course of peer relations.

Significance of the Study

A review of the relevant literature suggests that adolescent peer susceptibility should be conceptualized as multidimensional and include domains reflecting self-efficacy (Bandura, 1977), perceived control (Nowicki & Strickland, 1973; Paulhus, 1983), social confidence (Fleming & Watts, 1980), assertiveness (Gambrill & Richey, 1975), decision-making skills (Bugen & Hawkins, 1981), self-derogation (Kaplan, 1980), and protective self-presentation (i.e., attention to social comparison: Arkin, 1981; Lennox & Wolfe, 1984). A multidimensional assessment of peer susceptibility guided by social comparison (Festinger, 1954) and self-efficacy (Bandura, 1977) theories should contribute substantially to a better understanding of early adolescent peer relations.

CHAPTER 2

LITERATURE REVIEW

Adolescence is an important developmental stage that bridges childhood with young adulthood. A hallmark feature of adolescence includes physical maturation and formation of secondary sex characteristics. The most obvious of these changes are physical appearances that affect how others perceive the adolescent and likewise how the adolescent views himself or herself (Brooks-Gunn & Paikoff, 1992). Physical development is also linked developmentally with social and personal growth (Brooks-Gunn, 1984; Richards & Petersen, 1987). For instance, Richards and Petersen found that hormonal changes (both estrogen and progesterone) affect mood states, sex drives, irritability, anxiety, depression, and self-esteem.

A second important developmental task during adolescence is the shift from parental to peer influences. During this time, adolescents strive for autonomy and seek independence from family ties. Individuation reflects an adolescents' striving for freedom from parental control. The process of individuation includes building independent thought, contributing as a family member, and collaborating with parents to resolve personal and family issues. Youniss and Smollar (1989) reported that individuation is enhanced by parental acceptance of the adolescent's ideas and opinions, recognition of parents' fallibility, acceptance of the adolescent's cognitive and developmental changes, and the acquisition of conflict and negotiation skills. Adolescents who individuate successfully display positive attachment to the family by maintaining psychological closeness to parents.

Autonomy is defined as an adolescents' freedom to decide how to think, feel, and act. Steinberg's (1989) distancing theory posits that pubertal maturation produces a growing distance between young people and their parents. Several studies have reported that pubertal changes contribute to diminished attachment to parents, increased family conflict, and greater adolescent involvement in decision-making (Collins, 1990; Paikoff & Brooks-Gunn, 1991; Smetana, 1988). Despite a tendency to conceive adolescence as filled with turmoil and stress (Coleman, 1993) several findings point toward adolescent development and family relations as a period characterized by reciprocity, mutual respect, cooperation, and intimacy (Youniss & Smollar, 1989).

Another important feature of adolescent development regards qualitative changes in cognition that foster a transition from concrete to formal operational thinking (Keating, 1990). Transitions in reasoning skills and content form a basis for acquiring adult thinking styles. The onset of formal thought enables the adolescent to think about the self in the context of others. Cognitive reformulation facilitates developing inferences about the self that leads to self-identity formation. Formal operational thought also links past and current selves to future orientations. To achieve this, adolescents use peers as a mirror to check or test their self against peer group standards. In sum, peers represent a gold standard against which to compare successes in navigating developmental tasks and gauge identity formation. Furthermore, peer relations provide a useful medium through which to integrate physical, emotional, and cognitive growth.

According to Havighurst (1951) the major developmental tasks of adolescence include: (a) achieving new and more mature relations with age-mates of either sex, (b)

achieving masculine or feminine social roles, (c) accepting one's physical changes, (d) achieving emotional independence from parents and other adults, (e) preparing for marriage and family life, (f) preparing for an economic career, (g) acquiring a set of values and an ethical system as a guide to behavior (i.e., an ideology), and (h) achieving socially responsible behavior.

For many adolescents mastery of these salient developmental tasks affects the development and maintenance of positive peer relations. The importance of peer relations is paramount for developing a positive self-identity, the acquisition of roles and expectations of adulthood, and for later psychosocial adjustment.

Peer Relations and Psychosocial Development

Peers are benchmarks that adolescents use for developing personal traits, constructing normative beliefs and skills across diverse domains of development (Erikson, 1968; Hartup, 1989; Newman & Newman, 1976; Sullivan, 1953). Adolescents spend a great deal of time with peers and perhaps moreso than with parents, siblings, or other adults. This shift in influence during adolescence may occur because adolescents are less supervised when compared with middle childhood youth and are less apt to seek advice, support, and approval from their parents (Brown, 1990; Csikszentmihalyi & Larson, 1984; Higgins & Parsons, 1983). Hartup (1983) noted that preadolescents report a strong desire to belong to a peer group, and that peer groups generate shared norms and rules of behavior for its members. Hartup reported 80% of adolescents interviewed reported having at least one best friend and that this friendship was important to them. Based on these and related studies, Hartup (1992) concluded that "Becoming and

maintaining these [peer] relationships are among the most significant achievements of childhood and adolescence" (p. 176).

The importance peer relations have on the development of norms, values, dress, and behavioral conduct is well documented (Brown, 1990; Newman & Newman, 1976). Adolescents use peers as comparative standards to test and refine behavioral styles that can simultaneously be incorporated across multiple facets of the developing self. Thus, the perception and internalization of social and peer group norms influence the adolescent's standard from which self-identity develops (Berndt, 1979, 1989; Brown, 1989; Erikson, 1968; Newman & Newman, 1976; Seltzer, 1989; Sullivan, 1953). The adolescent process of adjusting one's behavioral style as a reflection of significant others has been termed the "adolescent imperative" (Seltzer, 1989).

Self-identity is in part developed from the interrelationship between the self and peer interactions (Erikson, 1968). According to Erikson, conflict between self-identity and role confusion manifests as the adolescent's struggle to define the self against the roles expected by significant others. Individuation and the struggle for autonomy are processes that contribute to self-identity. Newman and Newman (1976) expanded the importance of peer-group relations for the developing self-identity of the adolescent (i.e., peer group vs. alienation). Affiliation with a peer group provides friendship, support, and reassurance of the adolescent's self-worth. Peer group acceptance provides a sense of identity that provides a source of self-definition for the adolescent. However, when the adolescent is rejected from the peer group, he or she experiences alienation and negative self-evaluations that become internalized as cognitive representations of the

self. Self perceptions are influenced by negative self-evaluations that result when the adolescents goal of social approval and acceptance are not accomplished. Negative self-evaluations affect cognitive decisions to select specific behaviors intended to bring about social approval and positive peer evaluations (e.g., conformity).

Sullivan (1953) suggested that self-concept varies from the experience of interpersonal relationships during childhood and adolescence. Several researchers (Hartup, 1983, 1989; Parker & Asher, 1987) reported that the quality of peer relations predicts subsequent maladjustment including school dropout, criminality, and psychiatric problems. Rejected and isolated children and adolescents report diminished self-concepts (Asher, Parkhurst, Hymel, & Williams, 1990; Rubin & Coplan, 1992). Asher et al. found empirical support for Sullivan's proposition that peer-group acceptance influences adolescent development. For instance, compared to non-aggressive counterparts, aggressive youngsters reported maladjusted outcomes including crime and delinquency, adult psychiatric problems, academic failure, and school dropout (Kupersmidt & Coie, 1990; Parker & Asher, 1987; Pepler & Rubin, 1991).

Kupersmidt, Coie, and Dodge (1990) showed that peer social rejection is a strong predictor of academic failure and school dropout in socially rejected children. Asher et al. (1990) reported less popular or rejected youth perceived themselves as less socially competent, reported fewer positive expectations for social success, and expressed more feelings of depression. Along the same lines, Kupersmidt and Coie (1990) found that children categorized as rejected were twice as likely to be delinquent (35%) during adolescence than compared with a sample of non-rejected youth (17%).

In sum, maintenance of peer relations during adolescence serves as a medium for the development of positive self-identity, prosocial behaviors, interpersonal skills, appropriate role expectations, mastery of developmental tasks, and autonomy and individuation from parents. Peer relations also provide a foundation for a successful transition to adulthood. The ability to create positive relations with peers is an important developmental task.

Theoretical Background for the Present Study

SCT suggests that adolescents choose standards that approximate skills levels and abilities similar to the self (Festinger, 1954). Individuals prefer to make comparisons with similar others and diminish the importance of making comparisons with individuals different from themselves (Erwin, 1993). Hallinan (1981) suggested that similarities between people provide a basis for evaluating and validating one's social identity. Similarities increase a person's approval of the other, which reduces interpersonal conflict. In support of this view, Kandel (1978) reported that adolescents who develop friendships over a year adopted some characteristics of their counterpart. Similarities among peers are not only gauged by opinions and abilities but also by "related attributes" such as age, sex, and experience (Wheeler & Zuckerman, 1977). Because adolescents experience and share similar physical, cognitive, emotional, and social achievements it is important to include these experiences as part of a multidimensional assessment of peer susceptibility.

The decision to act (or not) is partly dependent on self-evaluative processes by which the adolescent compares himself or herself to peer group standards. Thus, the

quality of peer relations factors into an adolescents' self-evaluative process and affects various aspects of psychosocial functioning (e.g., assertiveness, self-esteem, and social confidence). Decisions to conform relate to an adolescent's goal of diminishing social disapproval and self-derogation, and attain social approval (i.e., positive self-evaluations). In effect, self-evaluations are affected by psychosocial processes that influence perceived confidence to conform and decision-making skills that foster positive peer relations.

To summarize, a review of relevant theory supports the contention that: (a) social comparison (i.e., self versus peer evaluations) is a need or drive during adolescence; (b) peer social approval is a desired goal; (c) conforming behavior is a means of attaining social approval and guards against self-derogation; and (d) peer influences affect adolescent development across several domains including the mastery of developmental tasks, the transition to adulthood, and subsequent psychosocial adjustment.

Rationale for the Development of a Multidimensional Assessment of Peer Susceptibility

A review of the relevant literature shows that peer susceptibility has primarily been operationalzed as unidimensional; despite indications that multiple developmental processes underlie peer relations. A second shortcoming highlights that most assessments of peer susceptibility have focused exclusively on behavioral outcomes (e.g., substance use) when in fact peer influences operate across diverse situations. Third, models of peer susceptibility are rarely articulated with respect to existing developmental theories. Most noteworthy among these are social comparison, attribution, self-efficacy,

and self-derogation, all of which have been used to articulate the prominent role of peers during adolescence. Fourth, psychometric analyses of peer susceptibility have relied on exploratory factor analysis. New developments in covariance structure analysis permit a more rigorous test of a hypothesized model against sample data using confirmatory factor analysis. Related to this last point, measurement error in a predictor can diminish predictive efficiency. Unreliability in measures of peer susceptibility produces bias in our current understanding of the processes underlying peer relations.

In the present study, a theory-driven assessment of peer susceptibility is posited to include dimensions of perceived control, social confidence, self-derogation, assertiveness, decision-making skills, and attention to social comparison. Perceived control refers to causal beliefs and attributions about cause in action. The individual (internal) or other agent (external) is causally related to rewards and reinforcements (Rotter, 1966). Locus of control can either be internally or externally oriented. For example, with an external locus of control an adolescent might seek reinforcement for behaviors from peers. Rotter suggested that internal locus of control in the "social domain" is expected to exert influence or persuasion in peer interactions with examples including prosocial leadership skills or refusing peer pressure to conform to misconduct (e.g., Krantz & Friedberg, 1986). A different facet of control, perceived personal control, taps control in the nonsocial world involving situations of personal achievement (Paulhus, 1983). In the present study, the inclusion of perceived personal control in the nonsocial arena helps elucidate whether peer susceptibility is purely social or includes control within the nonsocial world.

Social confidence reflects a dimension of self-esteem (Fleming & Watts, 1980; Hart, 1988; Harter, 1982, 1990; Marsh & Shavelson, 1985; Rosenberg, 1979; Shavelson, Hubner, & Stanton, 1976). Fleming and Watts factor analyzed Janis and Field's (1959) Feelings of Inadequacy Scale and obtained a factor tapping social confidence (i.e., "self-consciousness in public situations, shyness, and the ability to deal with people in groups", p. 925). Social confidence relates negatively to external locus of control, situational anxiety; and relates positively to need for approval.

Kaplan (1975, 1980) suggests that self-derogation is a central component of deviance and drug use. Self-derogation results from a history of peer-related experiences in which the adolescent is unable to forestall or reduce emotional distress derived from peer group relations. An adolescent accumulates negative feelings about the self that result from an inability to measure up to the standards of others. An accumulation of negative feelings can cause an adolescent to seek the company of peers who reject conventional standards of behavior in favor of alternate and less conventional lifestyles (e.g., substance use and delinquent behavior). According to self-derogation theory, by living up to the standards of a more deviant peer group, an adolescent gains prestige and self-esteem that is otherwise unavailable from the conventional group. By gaining prestige and social approval from a more deviant group, an adolescent becomes less motivated to conform to prosocial standards.

Social dimensions encompassing peer susceptibility include social assertiveness (Gambrill & Richey, 1975) and social comparison (Lennox & Wolfe, 1984). Wills, Baker, and Botvin (1989) factor analyzed Gambrill and Richey's 20-item Assertion

Inventory and obtained a dimension of assertiveness which they termed "rights assertiveness." Wills et al. reported this scale assesses, "assertion in situations where legitimate rights had been violated" (p. 475). In the present study defense of rights refers to situations such as: refusing a request, initiation of behavior, and presenting opinions different from others. It is posited that adolescents with poor assertiveness skills (i.e., low defense of rights) cannot fend off perceived pressure or influence from peers to conform to peer group standards.

Protective self-presentation (i.e., social comparison) is defined as a behavioral style used to guard against social disapproval (Arkin, 1981; Lennox & Wolfe, 1984). Arkin's theory of self-presentation posits that individuals highly concerned with disapproval from others use conformity for seeking safety against social disapproval (i.e., a protective style of self-presentation). Youth that are overly concerned with their own and significant others' behavior engage in a protective style of presentation. Socially conforming youth are highly concerned with social disapproval and therefore use conformity as a cognitive strategy to buffer against negative affect and self-derogation (i.e., feelings of low self-worth). Lennox and Wolfe suggested that attention to social comparison is a motivation to conform to social influences to avoid social disapproval. Lennox and Wolfe reported a positive association between attention to social comparison and fear of negative evaluation and neuroticism. Wolfe, Welch, Lennox, and Cutler (1985) reported that attention to social comparison is an efficient predictor of susceptibility to social influence.

Decision-making skills reflect a cognitive component of peer susceptibility and represent an ability to gather information, weigh consequences and alternatives of the behavior before engaging in action (Bugen & Hawkins, 1981). Youth with high levels of decision-making skills examine consequences of their actions and evaluate alternatives before engaging in behavior. Wills (1986) reported an inverse relationship between decision-making skills and substance use, which may reflect a vulnerability to negative peer influences among youth with low skills.

Self-Report Measures of Adolescent Peer Susceptibility

At present, no measurement instrument tapping peer susceptibility has been developed exclusively for early adolescents (sixth to eighth grades corresponding to the period between 11 and 13 years of age). Several assessments were developed specifically for younger (Dielman et al., 1987; Jones, McDonald, Fiore, Arrington, & Randall, 1990) or older (Brown, 1982; Hays & Ellickson, 1990) youth. Furthermore, several measures were constructed for application with a wide age (9 to 18 years) or grade range (third to twelfth grade) (e.g., Berndt, 1979; Bixenstine, DeCorte, & Bixenstine, 1976; Brown et al., 1986; Clasen & Brown, 1985; Keefe, 1992).

Table 1 presents several commonly used measures of peer susceptibility. A number of limitations are associated with each of these instruments. First, most of the assessments are written exclusively for elementary (third to fourth grade), high school, or college-age students. Few studies are available to ascertain the generalizability of these assessments to adolescent populations. Second, many of the assessments include hypothetical rather than ecologically valid situations, thus limiting the generalizability of

these measures to real-life adolescent experiences. Third, in most cases peer susceptibility is operationalized conceptually as consisting of a single dimension. Fourth, many of the studies used to evaluate these measures of adolescent peer susceptibility did not focus on establishing face and factorial validity.

In addition to these concerns, most assessments of peer susceptibility include items whose content assesses behavior related to substance use or misuse, misconduct, and antisocial behavior (Bixenstine et al., 1976; Dielman et al., 1987; Hays & Ellickson, 1990; Jones et al., 1990; Keefe, 1992; Kumpfer & Turner, 1991). Few assessments assess behavior that is prosocial or consist of items tapping neutral behavior (Berndt, 1979; Brown et al., 1986; Clasen & Brown, 1985). Dielman et al. (1987) included items tapping tolerance of deviance and alcohol or cigarette use in their conceptualization of peer susceptibility. Dielman et al. found peer susceptibility to be more highly correlated with substance use, misuse, and intention items than self-esteem, health, and adult locus of control. In sum, the inclusion of content related to deviance and substance use confounds the validity of what is being measured, obscures the definition of peer susceptibility, and thus possibly confounds the predictor with outcomes.

Finally, Brown (1989, 1990) reported sparse data in the literature that provides an explanation of the peer pressure process. Most researchers (e.g., Berndt, 1979; Bixenstine et al., 1976; Clasen & Brown, 1985; Dielman et al., 1987) have not reported any conceptual or logical framework to account for the manner in which peer susceptibility, peer pressure, or conformity operates.

Table 1. Self-Report Measures of Adolescent Peer Susceptibility

Measure	Author(s)	Targeted Age Group	Constructs (alphas)
Readiness/Resistance to Misbehave Scale	Bixenstine, DeCorte, and Bixenstine (1976)	Grades 3, 6, 8, & 11	hypothetical antisocial dilemmas, peer conformity
Conformity Dispositions	Berndt (1979)	Grades 3, 6, 9, 11, & 12	willingness to conform under different hypothetical situations; with peer and parent awareness (antisocial, 81, neutral, .61, prosocial, .07)
Peer Pressure Inventory	Clasen and Brown (1985)	Grades 7-12	perceived peer pressure to engage in behaviors around peer, school, and family involvement, conformity to peer norms, and misconduct (average, .70, peer conformity, .60
Peer Pressure Index	Brown, Lohr, and McClenahan (1986)	Grades 7-12	rate/direction of perceived peer pressure from friends and acquaintances under various behaviors (conformity, .74, social involvement, .55, misconduct, .83, pro-adult behavior, .53)
Susceptibility to Peer Pressure Index	Dielman, Campanelli, Shope, and Butchart (1987)	Grades 5-6	tolerance of deviance, alcohol and cigarette use, degree of predicted use (.78)
The Peer Pressure History Scale	Jones, McDonald, Fiore, Arrington, and Randall (1990)	Grade 3	reported history of drug-related peer pressure by frequency, outcome, and consequence.
Resistance Self-Efficacy	Hays and Ellickson (1990)	Grades 8 - 9	perceived pressure from peers and perceived competence (self-efficacy) to resist pressure (.77- .85)
Perceived Normative Pressure (parent and peer)	Keefe (1992)	Grades 7, 9, & 11	perceived pressure by parent and peers to drink alcohol (parent, .87, .89, .85; peer, .93, .92, .90)

To conclude, important gains can be made in our understanding of peer susceptibility with the development of an assessment that is theoretically based, conceptualized as multidimensional, and written to be appropriate for early adolescents.

Research Questions

1. What is the dimensional structure of early adolescent peer susceptibility?
2. What are the psychometric properties (internal consistency, test-retest reliability) of an assessment written to tap multiple facets of peer susceptibility?

Applications

1. Contribute to research on early adolescent peer susceptibility.
2. Develop a multidimensional assessment of peer susceptibility tapping psychological, social, and cognitive dimensions.
3. With further refinement of the Adolescent Peer Susceptibility Scale:
   a. It would be made available for researchers and educators to improve their ability to measure peer susceptibility during early adolescence.
   b. Improve the ability to identify early adolescents who may be at risk for susceptibility to negative peer pressure.
   c. Evaluate treatment and intervention programs for at-risk populations for which susceptibility to negative peer pressure situations leads to maladaptive behavioral outcomes.

CHAPTER 3

METHODOLOGY

Sample

Participants included 772 sixth through eighth grade students from seven public schools in Southern New Jersey. The sample included 53% (n = 397) girls and 47% (n = 375) boys. Average age of the students was 12.36 (range = 9 to 15, SD = 1.01). The students were distributed approximately equally in the sixth through eighth grades. The ethnic composition of the sample is 14.5% Hispanic, 8.5% African-American, 4.6% Asian, 1.7% Native American, 66.1% White, and 4.4% other. The family structure of the sample is 59.7% lived in an intact family structure (mother and father), 17.9% mother-only household, 3% father-only household, 13% mother and stepfather household, 1.7% father and stepmother household, and 4.6% other composition (e.g., grandparent, aunt, etc.). Table 2 provides a description of the background characteristics for the sample by grade and gender.

Measures

Qualitative and ethnographic strategies included memory-based techniques that relied on minimal-cue assessment strategies (Stacy, Ames, Sussman, & Dent, 1996; Stacy, Dent, Sussman, & Raynor, 1990; Stacy, Galaif, Sussman, & Dent, 1996) and focus groups. Results from these two strategies helped to determine item content and face validity of existing items. The focus groups provided an opportunity to examine adolescent's recollections regarding peer social interactions. A sample of early

adolescents (N = 20) mixed by gender, ethnicity, grade, academic group, and behavioral experiences (e.g., substance use and delinquent acts) were divided into two groups.

Table 2. Sample Description and Background Characteristics by Grade and Gender

	Sixth Grade		Seventh Grade		Eighth Grade	
	Female (n = 117)	Male (n = 122)	Female (n = 153)	Male (n = 129)	Female (n = 126)	Male (n = 124)
Ethnicity (%)						
Asian	2.6	5.7	2.0	5.4	4.8	5.6
American Indian	.9	1.6	3.9	2.3	.8	1.6
Afro-American	12.8	6.6	9.2	5.4	14.3	4.0
Hispanic	16.2	9.8	17.0	20.2	13.5	12.1
Caucasian	59.8	70.5	65.1	64.3	62.7	73.4
Other	7.7	5.7	3.3	2.3	4.0	3.2
Mean Age	11.37	11.36	12.29	12.30	13.38	13.49
Living Situation (%)						
Mother & Father	60.7	60.7	55.6	61.2	60.3	60.5
Mother only	20.5	13.9	18.3	20.9	21.4	12.9
Father only	.9	2.5	4.6	4.7	1.6	4.0
Mother & Stepfather	10.3	15.6	15.0	7.0	11.9	16.9
Father & Stepmother	1.7	1.6	3.3	1.6	1.6	
Non parent & (other)	6.0	5.7	2.6	4.7	3.2	5.6

Groups met separately with the researcher to discuss their peer experiences. Each adolescent responded to written prompts probing their peer social interactions (Appendix

A). Time was set aside for group facilitated social interaction. Focus group sessions were tape recorded and these tapes reviewed to examine content and language.

The purpose of the minimal-cue assessment strategy was to determine whether beliefs pertaining to peer susceptibility are readily accessible from memory and to establish the content of these beliefs. A separate sample of early adolescents (N = 168) was administered a short 3-item, paper-pencil, open-ended, memory assessment. Three minimal prompt cues included: "What are your thoughts when your friends want you to do something they are doing?"; "What do you think about when you try to decide whether to go along with your friends?"; and "Why do some kids do whatever their friends want them to do, no matter what it is?" Examination of the open-ended, self-generated responses provided an opportunity to elucidate whether patterns or commonly recurring phrases exist. Common phrases were then flagged and grouped by content (e.g., decision-making, assertiveness, and social comparison). Next, the constructs were assigned to psychological, social, or cognitive domains (i.e., decision-making to cognitive and social comparison to social). A breakdown by domain showed that 18% of the student's responses were psychological (e.g., "They have no control over their lives."), 50% were categorized as social (e.g., "They don't want to be different and they want to be cool among their friends."), and 32% were cognitive (e.g., "If I do it what will be the consequences?"). Percentage of constructs by domain were; psychological, 71% (perceived control) and 29% (self-derogation); social, 60% (social comparison), 24% (social confidence), and 15% (social assertiveness); and for the cognitive domain 100% were grouped as decision-making.

Items from existing scales were then included with new items written based on the focus groups and memory assessment techniques. Using exploratory factor analytic techniques, items were subjected to principal component factor analysis with varimax rotation. In addition, item-scale correlations, item variances, item means, and coefficient alphas were used to evaluate the homogeniety, similarity, and representativeness of items to the theoretical domains of interest. Items with low item-scale correlations, those containing compound statements, and difficult wording were eliminated. A correlation matrix was generated capturing associations among all items and this information was used to evaluate and select items. This evaluative process reduced the total item pool from 83 to 68 items. Then, a principal-components factor analysis with varimax rotation was performed on the remaining 68 items. Based on results from the scree test (Cattell, 1966) 15 factors with eigenvalues greater than 1.00 were retained; these factors accounted for 54% of the variance. Eleven of the 15 factors contained interpretable sets of items that had moderate to high loadings on the same factor, low cross-loadings on other factors, and content that corresponded to each of the target domains. Modification to scale length and selection of a final set of items is discussed in greater detail below.

Many scale items reflected empirically validated constructs including Social Confidence (Fleming & Watts, 1980), Decision-Making (Wills, 1986), Self-Derogation (Kaplan, 1975), and Social Comparison (Lennox & Wolfe, 1984). Adequate face, construct, and factorial validity has been reported elsewhere. Items from each of the resultant 11 factors were assigned to the following composite scales: The 15 Conformity Self-Efficacy items loaded on three factors; one tapping neutral (e.g., "Going to the

movies because my friends want me to go"), a second tapping deviant (e.g., "Giving answers on a test because my friends want me to"), and a third tapping social conformity (e.g., "cool among my friends"). A third cluster of items cross-loaded on other factors, were poorly written (ambiguous content), and were thus eliminated. A two-factor, 12-item scale tapping Conformity Self-Efficacy across two dimensions (neutral & deviant) was retained. The 17 perceived Personal Control items loaded on four factors; one reflecting personal control in social decisions (e.g., "When I am with my friends I try to make my own decisions"), a second tapping confidence in solving social problems (e.g., "If I have a problem, I can usually solve it myself"), a third tapping personal control in achievement situations (e.g., "When I get what I want it's usually because I worked for it"), and a fourth tapping attribution of social acceptance (e.g., "If someone doesn't like me, it's usually something I did"). Five poorly related and ambiguous items reflecting social acceptance (attribution) were eliminated, and this resulted in a three-factor, 12-item scale. The seven Social Confidence items loaded on a single factor tapping social anxiety. A single seven-item factor reflected Decision-Making skills (Wills, 1986).

The 12 Assertive Behavior items loaded initially on three factors that tapped defense assertiveness (e.g., "Express an opinion that is different than your friends"), affective assertiveness (e.g., "Telling a friend you liked them"), and initiation assertiveness (e.g., "Asking your friend for help on a take home exam"). The five items tapping affective and initiation assertiveness were incompatible with the current study goals and were eliminated on conceptual grounds. A seven-item factor tapping defense of rights was retained and supports previous reported empirical findings (Wills et al.,

1989). Ten Self-Derogation items loaded on two factors; a five-item scale tapping positive self-derogation (e.g., "I feel pretty happy about my life"), and a five-item scale tapping negative self-derogation (e.g., "I'm inclined to feel I am a failure"). The 15 items tapping Social Comparison loaded initially on three factors; attention to clothing style, behavior and language of peers (e.g., "I pay attention to what kids are wearing"), anxiety regarding behavior (e.g., "When I am the least bit uncertain how to act with kids, I look at them for cues"), and importance of conformity (e.g., "My behavior depends on how I feel others wish me to be"). Two items reflecting anxiety regarding behavior were troublesome due to their conceptual ambiguity and were eliminated, and this resulted in a two-factor, 13-item scale tapping attention to clothing style and group conformity.

A final self-report paper-and-pencil assessment consisted of 68 items with 11 scales hypothesized to represent a multidimensional structure of peer susceptibility (Flesch-Kincaid readability index: 7.42 grade level). Table 3 provides sample items corresponding to each construct, a listing of principle sources for each measure, and estimates of internal consistency for the complete sample and based on gender.

Conformity Self-Efficacy (CSE). Two six-item random indicators reflected a latent construct of conformity self-efficacy. One indicator assessed neutral conformity (e.g., going to the movies, going to the mall, or riding bikes), and one indicator assessed deviance conformity (e.g., lying, spreading rumors, or joining in on a fight). Response categories ranged from 1 (Very much like me) through 5 (Not like me at all). Assessment of conformity self-efficacy is based on persuasion and communication theory

(i.e., McGuire, 1968; Zellner, 1970). Items were scaled to reflect higher conformity and persuasion by peer influences.

Personal Control (PC). Based on locus of control theory (Nowicki & Strickland, 1973; Rotter, 1966), three indicators reflected a latent construct of personal control in social situations. Five items from the Paulhus (1983) Spheres of Control (SOC) battery formed an indicator of personal self-efficacy. Sample items include, "When I make plans I am almost certain to make them work" and "When I get what I want its usually because I worked for it." Two additional random parcels (comprised of three and four items, respectively), assessed personal control in the social world. Sample items include, "When I am with my friends, I try to make my own decisions" and "If there is a problem with my close friends, I can usually fix it myself." Response categories ranged from 1 (Strongly disagree) through 5 (Strongly agree). Items were recoded so that scale scores reflected higher perceived internal control.

Social Confidence (SC). Two random parcels were used to reflect social concern and interpersonal anxiety. Social concern taps self-consciousness in public situations, shyness, and the ability to deal with people in groups. Fleming and Watts (1980) reported that social confidence correlates negatively with external locus of control, situational anxiety, and correlates positively with need for approval. Sample items include, "I'm concerned whether people regard me a success or failure" and "When I'm in a group of people, I have difficulty thinking of the right thing to say." Response categories ranged from 1 (Strongly disagree) through 5 (Strongly agree).

Decision-Making (DM). Seven items from the Coping Assessment Battery (Bugen & Hawkins, 1981) reflected a latent construct of decision-making skills in applied situations. Decision skills assess confidence in gathering information and weighing consequences and alternatives of behavior before engaging in action. Seperate three and four-item random parcels were used as indicators to reflect this construct. Sample items include, "When I have a problem or need to make an important decision I: Get the information needed to make the best choice." Response categories ranged from 1 (Never) through 5 (Always).

Assertive Behavior (AB). Seven items from the Assertion Inventory (Gambrill & Richey, 1975) tapped frequency of social assertiveness and defense of rights (Wills et al., 1989). Defense of rights assesses frequency of general assertiveness including standing up for one's rights, expressing controversial opinions, returning defective merchandise, and social confrontation. Using the stem, "How easy or hard it is for you to... Sample items include, Turn down a request from a friend to borrow money" and "Express an opinion that is different than your friends." Response categories ranged from 1 (Very difficult) through 5 (Very easy). The seven items were assigned to a four and three-item random parcel.

Self-Derogation (SD). Seperate five-item indicators reflected positive and negative self-derogation (Kaplan, 1975, 1980; Kaplan, Martin, & Robbins, 1984). Sample items include, "I wish I could have more respect for myself", "I think I'm a productive person", and "I feel excited about what I've done." A stem was written to

Table 3. Composite Scales of Adolescent Peer Susceptibility, Sample Items, Reliabilities[a], and Sources for Measures

Composite Scales	Sample Item	FS	F	M	Principle Source
Conformity Self-Efficacy (12)[b]	Going to the movies because my friends want me to go.	.84	.84	.85	Lennox and Wolfe (1984)
Personal Control (12)[c]	If I have a problem with my close friends, I can fix it myself. I can learn anything if I set my mind to it.	.66	.66	.65	Paulhus (1983)
Social Confidence (7)[c]	When in a group, I have difficulty thinking of the right thing to say.	.74	.73	.74	Fleming and Watts (1980)
Decision-Making Skills (7)[d]	Think about choices that exist before I take any action.	.81	.80	.82	Wills (1986); Bugen and Hawkins (1981)
Assertive Behavior (7)[e]	Express an opinion that is different from your friends.	.74	.76	.73	Gambrill and Richey (1975)
Self-Derogation (10)[f]	I wish I could have more respect for myself.	.80	.80	.80	Kaplan and Pokorny (1976)
Attention to Social Comparison (13)[g]	I pay attention to what other kids are wearing.	.85	.86	.84	Lennox and Wolfe (1984)

Note. Numbers in parentheses reflect the number of items in each scale. FS: full sample (N = 772); F: females (n = 397); M: males (n = 375). [a]Reliabilities were computed using Cronbach's alpha. Scale response categories range from: [b]very much like me (1) through not like me at all (5); [c]strongly disagree (1) through strongly agree (5); [d]never (1) through always (5); [e] very difficult (1) through very easy (5); [f]always true (1) through always not true (5); [g]always true of me (1) through not true of me at all (5).

assess the adolescent's current feelings (i.e., best currently indicates your feelings). Response categories ranged from 1 (Always true) through 5 (Always not true).

Attention to Social Comparison (ASC). Ten items from Lennox and Wolfe's (1984) Concern for Appropriateness Scale and three additional items constructed by the author reflected a latent construct of attention to social comparison. A four-item indicator tapped conformity to clothing styles and use of popular vernacular; a four-item indicator tapped conformity gauging self against others, and a five-item indicator tapped group social comparisons. Sample item for conformity to clothing style include, "I pay attention to what others are wearing", and for self vs. other include, "I often compare myself to my friends", and for group social comparison include, "It's important to fit in with the group I am with." Response categories ranged from 1 (Always true of me) through 5 (Not true of me).

Procedures

Temple University's Institutional Review Board provided formal approval for conductance of the present study. The Superintendents of Schools for the Brigantine, Millville, Ocean City, Somers Point, Upper Township, Ventnor, and Woodbine school districts and district Principals provided formal approval. An active consent procedure was used to obtain permission from each parent and student participant. Distribution of consent forms took place one week prior to the scheduled in-class assessment. Students without signed forms were excused from the classroom on the day of the scheduled assessment without prejudice. The doctoral candidate read the "Introductory Statement

Read to Participants" (Appendix B), distributed the survey, and following collection of surveys, answered students questions regarding the research project.

The Adolescent Peer Susceptibility Scale (APSS) was group-administered in a classroom setting (15 to 25 students per group) during regularly scheduled classroom periods. A copy of the APSS is provided in Appendix C. Test-retest stability coefficients were obtained over a two-week period with a sample of (n = 101) students.

Data Analysis

Summary descriptive statistics were computed for the 68-item APSS. Following exploratory factor analyses and application of data reduction techniques, composite scales were created. Means, standard deviations, and estimates of internal consistency were generated for the summary scales.

Estimates of Internal Consistency. Cronbach's alpha (1951) provides an estimate of internal consistency and scale homogeneity. Alphas were computed based on the complete sample, by grade, and by gender. Test-retest (2-week interval) reliability was computed using Pearson product-moment correlations.

Factor Analysis. Confirmatory factor analysis conducted with the EQS (Bentler, 1995) statistical program was used to test alternative dimensional structures of the APSS. In contrast to exploratory factor analysis, confirmatory techniques provide an opportunity to contrast statistically alternative conceptualizations of peer susceptibility as well as determine the statistical fit of the sample data to various hypothesized structures. Several criteria were used to evaluate statistically the overall model fit, including: (a) χ^2 to degree of freedom ratio (optimally less than 5.0); (b) p-value associated with the χ^2 (p

> .05); (c) the Comparative Fit Index (CFI: a sample-size adjusted analogue to the Normed Fit Index [Bentler & Bonnet, 1980] indicating the amount of covariation accounted for in the sample data by the hypothetical model [Bentler, 1990]); and (d) the standardized root-mean-square-residual (RMSR), indicating the amount of residual covariation unaccounted for by the hypothesized model (or lack of fit). Benchmarks for this latter statistic are considered adequate if less than .05 and for the CFI are considered adequate approaching .90. A nonsignificant model ($p > .05$) confirms satisfactory and statistical congruence between the sample covariances and the implied model (i.e., the data are a reasonable approximation of the hypothetical structure).

Hypotheses

A priori research hypotheses are stated in directional form. Where theory and empirical findings do not dictate directional form hypotheses, the null form is used. Specific research hypotheses include:

1. Males and females do not significantly differ in their mean scale scores.
2. Males and females do not differ in the associations among scale factors.
3. The structure of peer susceptibility is multidimensional and consists of primary factors reflecting Conformity Self-Efficacy, Perceived Personal Control, Social Confidence, Decision-Making, Assertive Behavior, Self-Derogation, and Social Comparison.
4. A higher-order structure can more parsimoniously reflect the underlying primary factor structure.

5. In a higher order model, the association between Cognitive and Social Susceptibility will not differ based on gender.

6. Current theory and past empirical findings dictate that:

    a. High internal locus of control is associated inversely with conformity self-efficacy.

    b. High social confidence is associated positively with conformity self-efficacy.

    c. High levels of decision-making is associated inversely with conformity self-efficacy.

    d. High assertiveness is associated inversely with conformity self-efficacy.

    e. High self-derogation is associated positively with conformity self-efficacy.

    f. High attention to social comparison is associated positively with conformity self-efficacy.

CHAPTER 4

RESULTS

Three research objectives guided conductance of the current study. First, estimates of internal consistency were computed for each of the observed composite scales. Second, the dimensional structure of the APSS was determined empirically based on the associations among seven theoretically important domains of adolescent functioning. Third, interrelations among the primary factors were examined based on results of the CFA. Multiple group comparison procedures were used to contrast statistically these associations based on gender.

Summary Descriptive Statistics for Scale and Items

Table 4 contains summary descriptive statistics by grade for the composite scales used as indicators to reflect the primary factors. A careful inspection of the skewness and kurtoses shows that there were no substancial deviations from normality and the modal values for each composite were close to scale midpoints. Appendix D-1 contains this same statistical information presented for each item contained in the 68-item APSS. Also included in this Appendix are item-to-total correlations for each scale. Mean item-to-total correlation across all of the scales was .45.

Internal Consistency of Composite Scales

Estimates of internal consistency were computed using Cronbach's alpha (1951). Table 5 contains alphas for the complete sample, by grade, and gender. Alphas ranged from a low of .66 (Personal Control) to a high of .85 (Attention to Social Comparison) for the full sample. Magnitudes for the alphas were relatively consistent across gender.

Table 4. Summary Descriptive Statistics for Adolescent Peer Susceptibility Composite Scales by Grade

Composite Scales	M	N	Range	SD	Skew	Kurtosis
			Sixth Grade			
Conformity Self-Efficacy	27.3	239	12-52	8.9	.44	-.30
Personal Control	43.6	239	7-60	6.18	-1.20	5.41
Social Confidence	22.6	237	7-35	5.67	-.30	-.29
Decision-Making	24.2	237	7-35	4.67	-.50	1.12
Assertive Behavior	24.2	238	7-35	5.38	-.40	-.12
Self-Derogation	25.1	238	11-46	7.15	.37	.05
Attention to Social Comparison	38.8	235	5-65	10.5	-.20	.33
			Seventh Grade			
Conformity Self-Efficacy	29.5	282	12-60	9.75	.42	.03
Personal Control	43.8	282	6-58	6.39	-1.2	5.77
Social Confidence	22.1	281	7-35	5.41	-.20	-.32
Decision-Making	24.2	280	2-35	5.67	-.50	1.24
Assertive Behavior	24.7	276	7-35	5.13	-.40	.63
Self-Derogation	25.2	274	10-50	7.16	.56	.89
Attention to Social Comparison	38.8	275	13-65	9.75	-.20	.17
			Eighth Grade			
Conformity Self-Efficacy	30.3	250	12-60	9.19	.68	.51
Personal Control	45.8	250	2-58	6.54	-1.8	8.24
Social Confidence	21.4	247	7-35	5.64	-.20	-.25
Decision-Making	24.7	247	9-35	5.13	-.30	.32
Assertive Behavior	24.9	246	8-35	5.39	-.50	.04
Self-Derogation	22.9	245	10-40	6.96	.15	-.63
Attention to Social Comparison	38.3	244	13-65	10.1	.13	-.11

Note. M = mean, N = sample size, SD = standard deviation.

Magnitudes for the alphas improved slightly with increasing age. Overall, alphas of this magnitude suggest that all of the scales, with the noted exceptions, are psychometrically sound.

Table 5. Estimates of Internal Consistency for Composite Scales by Grade and Gender[a]

Composite Scales	Grade 6 (n = 231)			Grade 7 (n = 274)			Grade 8 (n = 243)		
	FS	F	M	FS	F	M	FS	F	M
Conformity Self-Efficacy	.83	.80	.84	.85	.86	.85	.86	.85	.85
Personal Control	.60	.57	.63	.65	.64	.67	.70	.74	.62
Social Confidence	.75	.74	.75	.71	.71	.70	.75	.73	.77
Decision-Making	.75	.78	.72	.82	.80	.85	.83	.81	.85
Assertive Behavior	.75	.80	.70	.75	.74	.76	.74	.75	.72
Self-Derogation	.78	.80	.77	.80	.79	.80	.82	.82	.81
Attention to Social Comparison	.84	.86	.82	.85	.86	.82	.87	.87	.88

Note. [a]Reliabilities were computed using Cronbach's alpha estimate of internal consistency.
FS: full sample; F: female; M: male.

Test-Retest Stability of Composite Scales

Test-retest (two weeks) stability coefficients are contained in Table 6. All stability coefficients were significant ($p \leq .01$). The moderate to large magnitude of these associations suggest that there is little developmental flux in these domains over this short time period.

Table 6. Descriptive Statistics, Reliabilities, and Test-Retest Stability Coefficients for the Adolescent Peer Susceptibility Composite Scales

Composite Scales	Time 1	Time 2	Stabilities
Conformity Self-Efficacy			.80**
M	28.41	27.10	
SD	8.26	8.60	
α	.82	.86	
Personal Control			.57**
M	44.68	44.65	
SD	5.74	5.82	
α	.66	.70	
Social Confidence			.77**
M	22.00	21.51	
SD	5.72	5.26	
α	.76	.78	
Decision-Making Skills			.81**
M	25.28	24.51	
SD	5.11	5.22	
α	.83	.86	
Assertive Behavior			.74**
M	24.16	24.65	
SD	4.96	4.74	
α	.70	.72	
Self-Derogation			.71**
M	23.61	23.60	
SD	6.20	6.53	
α	.78	.83	
Attention to Social Comparison			.74**
M	37.32	37.10	
SD	8.76	8.94	
α	.83	.85	

Note. Interval between Time 1 and Time 2 is two weeks. Reliabilities were computed using Cronbach's alpha. $n = 101$.
** $p \leq .01$.

Mean Differences for Composite Scales Based on Gender and Grade

Mean comparisons based on gender for all scales were conducted using Student's t tests. Males reported significantly higher levels of Conformity Self-Efficacy (M = 30.79, SD = 9.79) than females (M = 27.45, SD = 8.70), $t(749.49) = 5.00$, $p \leq .001$. Females reported significantly higher levels of Social Confidence (M = 22.73, SD = 5.51) than males (M = 21.23, SD = 5.55), $t(760.34) = 3.75$, $p \leq .001$. Males reported significantly higher levels of Assertive Behavior (M = 24.97, SD = 5.10) than females (M = 24.21, SD = 5.44), $t(758.84) = 1.99$, $p \leq .05$. Females reported significantly higher levels of Self-Derogation (M = 25.26, SD = 7.03) than males (M = 23.52, SD = 7.19), $t(751.13) = 3.35$, $p \leq .001$.

Table 7 contains the analysis of variance results that compare scale means by gender and grade. Significant main effects for grade were found for Conformity Self-Efficacy, $F(2,770) = 7.32$, $p \leq .001$, Personal Control, $F(2,770) = 8.87$, $p \leq .001$, and Self-Derogation, $F(2,770) = 8.59$, $p \leq .001$. Post hoc mean comparisons using the Scheffe's multiple comparison test indicated that eighth and seventh graders reported significantly higher Conformity Self-Efficacy than sixth graders (Ms = 30.34, 29.45, 27.34, respectively). Eighth graders reported significantly higher Personal Control (Ms = 45.80 vs. 43.62, 43.82) than seventh and sixth graders. However, sixth and seventh graders reported significantly higher scores than eighth graders for Self-Derogation (Ms = 25.12, 25.19, and 22.86).

Table 7. Least Square Adjusted Means for Seven Domains of Peer Susceptibility

Composite Scales	Total Sample	Sixth Grade		Seventh Grade		Eighth Grade		F values	
		Female	Male	Female	Male	Female	Male	Grade	Gender
CSE	29.07	25.40	29.20_{b}	28.30_{a}	30.82_{ab}	28.40_{a}	32.32_{ab}	7.32***	25.99***
PC	44.20	43.84	43.41	43.00	44.22	45.11_{a}	46.49_{a}	8.87***	1.59
SC	22.01	23.48_{b}	21.66	22.73_{b}	21.30	22.02_{b}	20.74	2.80	14.07***
DM	24.38	24.45	24.03	24.14	24.21	24.33	25.14	.86	.18
AB	24.58	23.75	24.62_{b}	24.34	25.07_{b}	24.52	25.22_{b}	1.09	3.99*
SD	24.42	26.03_{ab}	24.24_{a}	25.43_{ab}	24.91_{a}	24.30_{b}	21.41	8.59***	10.94***
ASC	38.65	37.41	40.18	39.41	38.11	38.58	38.09	.21	.11

Note. Labels: CSE = Conformity Self-Efficacy; PC = Personal Control; SC = Social Confidence; DM = Decision-Making; AB = Assertive Behavior; SD = Self-Derogation; ASC = Attention to Social Comparison. Means are adjusted for grade by gender comparison. Means in the same row that do not share subscripts differ significantly in post hoc analysis. Means with same subscript are not different significantly. N = 702.

[a]Mean comparisons by grade.

[b]Mean comparisons by gender.

* $p \leq .05$, ** $p \leq .01$, *** $p \leq .001$.

Significant main effects for gender were found for Conformity Self-Efficacy $F(1,770) = 25.99$, $p \leq .001$, Social Confidence $F(1,770) = 14.07$, $p \leq .001$, Assertive Behavior, $F(1,770) = 3.99$, $p \leq .05$, and Self-Derogation, $F(1,770) = 10.94$, $p \leq .001$. Post hoc mean comparisons by t test revealed males reported significantly higher Conformity Self-Efficacy than females (Ms = 30.79 vs. 27.45), $t(749.49) = 5.00$, $p \leq .001$. Females reported significantly higher Social Confidence than males (Ms = 22.73 vs. 21.27), $t(760.34) = 3.75$, $p \leq .001$. Males reported higher assertiveness than females (Ms = 24.97 vs. 24.21), $t(758.84) = 1.99$, $p \leq .05$. Females reported higher Self-Derogation than males (Ms = 25.26 vs. 23.52), $t(751.13) = 3.35$, $p \leq .001$.

Confirmatory Factor Analyses (CFAs)

A confirmatory factor analysis was conducted using the EQS statistical program (Bentler, 1995). Figure 1 shows the results of a seven-factor model of peer susceptibility. Numbers on the single-headed arrows represent standardized factor loadings, and numbers inside the small circles represent residual variances for the indicators (observed variables). The initial fit of the hypothesized model to the data was adequate, χ^2 (187, N = 772) = 458.266, $p \leq .001$; CFI = .925, $\chi^2/df = 2.45$. However, a closer inspection of the residual matrices and modification indexes provided by the LaGrange Multiplier (LM) test (Chou & Bentler, 1990) indicated that some reparameterization would enhance model fit (i.e, relaxing residual covariances would decrease χ^2 sufficiently enough for each degree of freedom change, and likewise remove substantively meaningful covariation from the residual matrix).

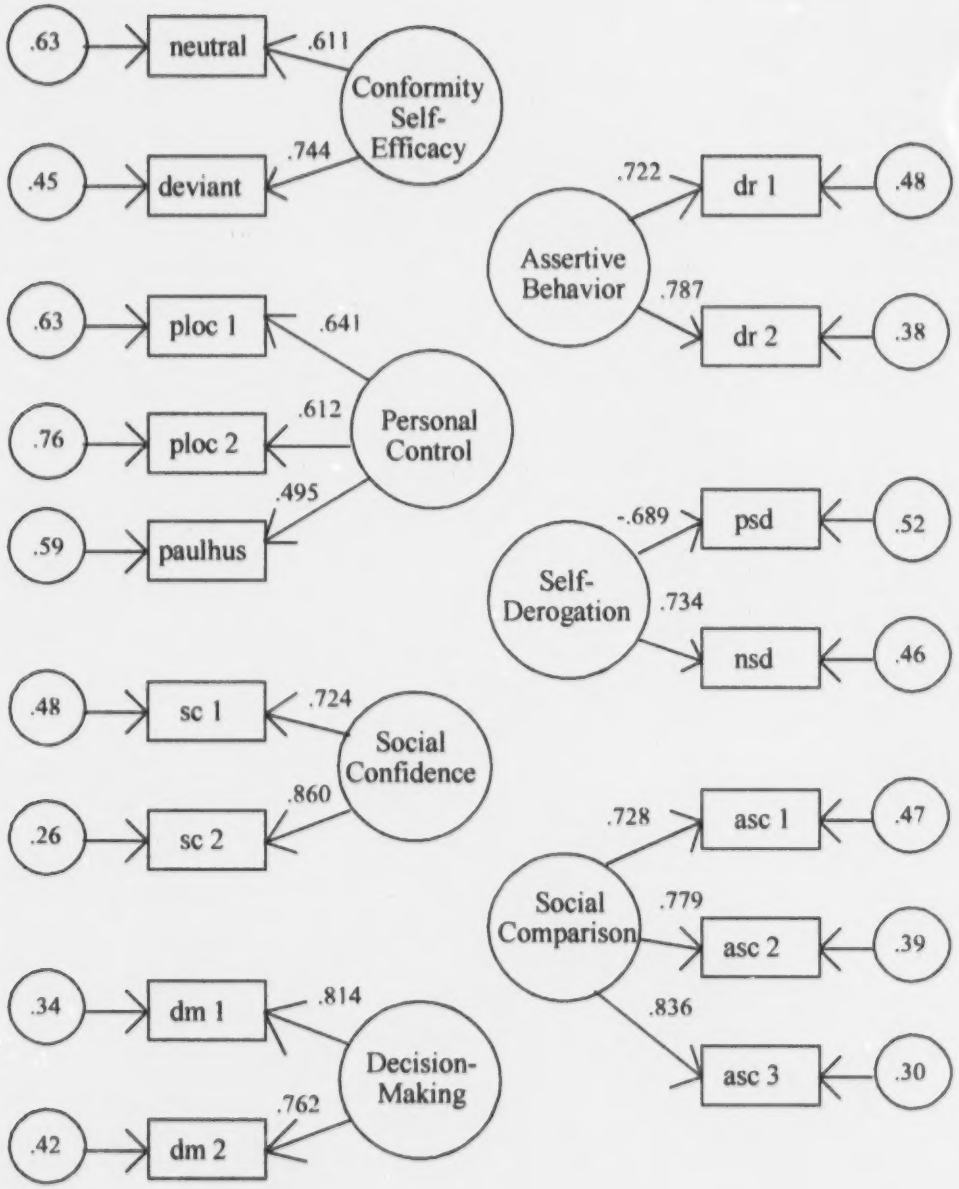

Figure 1. Confirmatory Factor Analysis Showing Multidimensional Seven-Factor Structure of Adolescent Peer Susceptibility

Note. Large circles are latent constructs, rectangles are measured variables. Factor loadings are standardized, and all loadings significant at $p < .001$. Labels: ploc = peer locus of control; sc = social confidence; dm = decision-making; dr = defense of rights; psd = positive self-derogation; nsd = negative self-derogation; asc = attention to social comparison.

Based on the stepwise multivariate LM test, seven residual covariances were relaxed and estimated freely. These covariances included indicators of: Assertive Behavior and Self-Derogation; Conformity Self-Efficacy and Social Comparison; Conformity Self-Efficacy and Social Confidence; Conformity Self-Efficacy and Self-Derogation; Social Confidence and Decision-Making; Personal Control and Social Comparison, and; Conformity Self-Efficacy and Personal Control. Four of the seven covariances included Conformity Self-Efficacy, and overlapped with other similarly depicted factors (i.e., Social Comparison, Social Confidence, Self-Derogation, and Personal Control). Results of this reparameterizations produced a better model fit, χ^2 (180, $\underline{N}$ = 772) = 416.150, $\underline{p} \leq .001$; CFI = .937, $\chi^2/df = 2.31$, $\Delta\chi^2$ (7) = 42.12, $\underline{p} \leq .001$.

All factor loadings from the seven-factor model of Peer Susceptibility were significant ($\underline{p} \leq .001$), and support the hypothesized factor structure. The relative magnitude for each of the indicator loadings validates the strength of the indicator as a reflection of the latent construct, and reinforces the psychometric soundness for each of the hypothesized constructs. There was little variability in the relative magnitude for each loading within constructs.

Intercorrelations Among the Latent Constructs

Table 8 contains the factor intercorrelations from the CFA model testing the primary factor structure. In order of decreasing relative magnitude, Conformity Self-Efficacy was related negatively to Social Confidence ($\underline{r}$ = -.59, $\underline{p} < .001$), Personal Control was related positively to Attention to Social Comparison ($\underline{r}$ = .57, $\underline{p} < .001$) and related positively to Assertive Behavior ($\underline{r}$ = .49, $\underline{p} < .001$), Decision-Making Skills was

related negatively to Attention to Social Comparison ($r = -.47$, $p < .001$), and Conformity Self-Efficacy was related positively to Assertive Behavior ($r = .40$, $p < .001$).

Table 8. Latent Factor Intercorrelations From the Seven-Factor Confirmatory Factor Analysis Model of Adolescent Peer Susceptibility

Factors	CSE	PC	SC	DM	AB	SD	ASC
CSE	---	.147**	-.587***	-.008	.395***	.094*	.187**
PC		---	-.097*	-.135**	.486***	.353***	.568***
SC			---	.357***	-.243***	-.359***	-.342***
DM				---	.071	-.441***	-.464***
AB					---	.147**	.358***
SD						---	.375***
ASC							---

Note. Labels: CSE = Conformity Self-Efficacy; PC = Personal Control; SC = Social Confidence; DM = Decision-Making; AB = Assertive Behavior; SD = Self-Derogation; ASC = Attention to Social Comparison. $N = 772$.
* $p \leq .05$, ** $p \leq .01$, *** $p \leq .001$.

Table 9 contains the factor intercorrelations by gender. Using the multiple group comparison procedure in EQS the seven-factor CFA model was constrained to equivalence between females and males. Important differences in the correlational patterns in order of decreasing relative magnitude include: Conformity Self-Efficacy with Attention to Social Comparison (females = - .70 vs. males = -.40), Assertive Behavior with Self-Derogation (females = .28 vs. males = .47), Conformity Self-Efficacy with Self-Derogation (females = .35 vs. males = .18), Conformity Self-Efficacy with Social Confidence (females = -.22 vs. .10), Conformity Self-Efficacy with Personal Control

(females = .10 vs. males = .32), Personal Control with Attention to Social Comparison (females = .01 vs. males = -.22), and Social Confidence with Decision-Making Skills (females = -.01 vs. males = .15). All differences are significant $p < .01$ (with the exception of Social Confidence, $p < .05$), using the Fisher r-to-z transformation test.

Table 9. Latent Factor Intercorrelations From the Seven-Factor Confirmatory Factor Analysis Model of Adolescent Peer Susceptibility by Gender

Factors	CSE	PC	SC	DM	AB	SD	ASC
CSE	[a]---	.061	-.215***	.442***	.167*	.350***	-.713***
PC	.315***	---	-.173**	.456***	.389***	.551***	.012
SC	.092	-.033	---	-.008	-.419***	-.524***	.404***
DM	.392***	.540***	.149**	---	.255***	.435***	-.289***
AB	.061	.269***	-.431***	.038	---	.274***	-.373***
SD	.177**	.553***	-.361***	.293***	.473***	---	-.391***
ASC	.405***	-.224**	.313***	-.189**	-.350***	-.321***	---

Note. $N_f = 397$, $N_m = 375$. [a]Correlations for females in upper diagonals, correlations for males in lower diagonals. Labels: CSE = Conformity Self-Efficacy; PC = Personal Control; SC = Social Confidence; DM = Decision-Making; AB = Assertive Behavior; SD = Self-Derogation; ASC = Attention to Social Comparison.
* $p \leq .05$, ** $p \leq .01$, *** $p \leq .001$.

The moderate interfactor correlations observed in Table 8 suggests that an alternative higher-order structure could account more parsimoniously for the associations among the primary factors. Accordingly, a second-order structure with two higher-order constructs was posited to account for these relations. This model configuration included Conformity Self-Efficacy, Personal Control, Decision-Making Skills, and Self-Derogation as indicators of a second-order factor reflecting Cognitive Susceptibility, and

Social Comparison, Social Confidence, and Assertive Behavior as indicators of a second-order factor reflecting Social Susceptibility. This model also estimated freely the association between the two second-order constructs. Model fit statistics showed that this model did not provide an adequate fit to the data, χ^2 (95, N = 772) = 547.126, p ≤ .001; CFI = .873 χ^2/df = 5.75 was less than adequate (CFI ≤ .90).

A careful inspection of the factor loadings for the second-order construct tapping Cognitive Susceptibility indicated that Conformity Self-Efficacy did not load significantly on this factor. Subsequently, the model was reparameterized with an additional constraint of Conformity Self-Efficacy having a zero loading on Cognitive Susceptibility. Figure 2 shows the final second-order model and indicates an adequate two-dimensional structure underlying the six remaining primary factors.

The fit of the second-order model was adequate, χ^2 (67, N = 772) = 256.26, p ≤ .001; CFI = .939 χ^2/df = 3.82. The two second-order factors adequately account for the relations among the six primary factors, $\Delta\chi^2$ (28) = 290.866, p ≤ .001, and improved significantly on the primary factor model. Cognitive Susceptibility consists of perceived personal control, decision-making, and self-derogation (i.e., self-worth). Social Susceptibility consists of social comparison, social confidence (anxiety), and assertive behavior. The two second-order factors were moderately and significantly associated (r = -.42, p < .001). Standardized parameter loadings for the primary factors (as indicators of the second-order factors) were all large and significant. As a measure of model fit, these numbers show that the second-order factors are statistically reliable and that the hypothesized structure fits the sample data well. The nested difference between a model

positing the primary factor structure and the second-order structure shows that the second-order model more parsimoniously represents the associations among the primary factors.

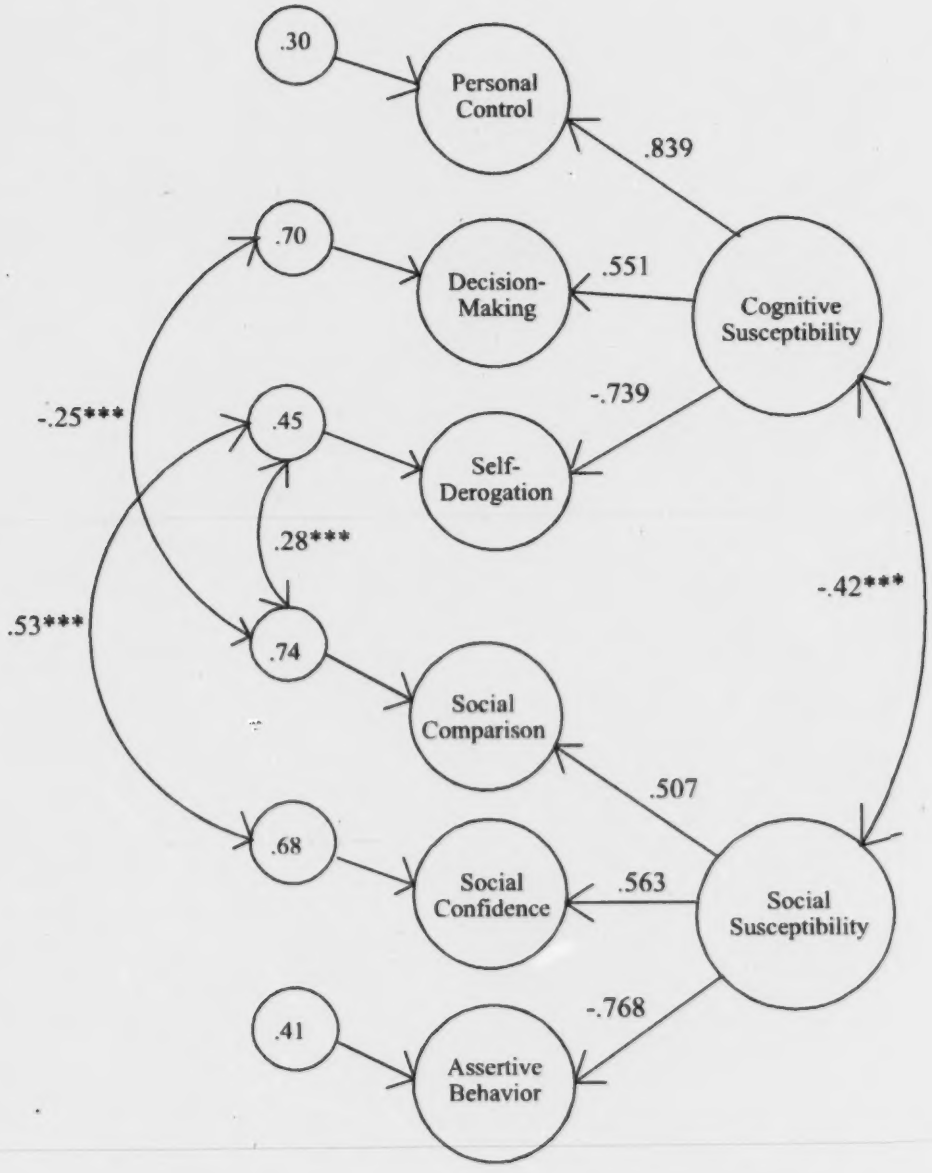

Figure 2. Confirmatory Factor Analysis Depicting Second-Order Factor Structure

Note. Large circles depict higher order constructs, small circles indicate primary constructs, and smaller circles with numbers inside are residual variances. Measured variables have not been included in figure for purposes of clarity, but can be found in Figure 1. All standardized loadings significant $p < .001$.
*** $p < .001$.

CHAPTER 5

DISCUSSION

The purpose of this study was to develop, test, and refine a theoretically-based assessment of adolescent peer susceptibility. Adolescents rely on peers to provide age appropriate standards from which to gauge important developmental milestones including physical, cognitive, social, and emotional growth. In the quest for self-identity and independence from parental influence, peers represent a sounding board for conducting social comparisons and evaluating personal growth. In addition to enhancing growth from close peer relations, developmental theories of deviance suggest that peers also provide a natural conduit for acquiring delinquent behaviors. Research on individual differences in vulnerability to deviance suggest that factors including low self-esteem, poor interpersonal skills, low personal competence, and low self-efficacy are important psychosocial vulnerabilities that contribute to delinquency. However, few empirical studies have provided a clear indication of the precise conditions that foster individual susceptibility to peer social influences. Moreover, there is limited empirical and psychometric support for current assessments of individual differences in peer susceptibility. Therefore, the present study emphasized the psychometric assessment of individual differences in susceptibility based on a multidimensional and theoretically-driven framework of peer susceptibility.

Latent variable confirmatory factor analyses indicated peer susceptibility consists primarily of seven primary factors tapping conformity self-efficacy, personal control, decision-making skills, self-derogation, social comparison, social confidence, and

assertive skills. These factors were statistically reliable and inspection of the factor intercorrelations indicated clusters of moderately related constructs. A hypothesized second-order structure contained moderately related dimensions of cognitive and social susceptibility and that accounted for the relations among six of the primary factors. Cognitive susceptibility consisted of self-evaluation, perceived personal control, and applied decision-making skills. Social susceptibility reflected interpersonal anxiety and social concern, assertive behavior, and social comparison processes.

Inspection of the factor intercorrelations showed that high reported levels of conformity is associated with high social anxiety, high self-derogation, low social assertiveness, high attention to social comparison, and low perceived personal control. These results are consistent with previous empirical findings (e.g., Arkin, 1981; Fleming & Watts, 1980; Gambrill & Richey, 1975; Kaplan, 1980) and comport with theoretical arguments outlining the developmental role of efficacy and conformity (Nowicki & Strickland, 1973).

Gender also can play an important role in determining vulnerability to peer influences. In the present study, males reported significantly higher conformity and defense of rights, whereas females reported significantly more social anxiety and self-derogation. These findings are consistent with previous empirical studies that reported significant gender differences in reported levels of assertive and interpersonal skills (Scheier & Botvin, 1997; 1998; Wills et al., 1989). An additional issue relates to whether the interrelations among the primary constructs varies by gender. In this regard, mean differences reflect differences in variability and based on appropriate statistical

tests a researcher can draw inferences whether the two groups are drawn from a single population. More detailed tests that rely on multiple group comparison procedures provide a more refined look at whether patterns of associations differ between males and females and whether early socialization influences vulnerability.

Indeed, early socialization processes relating to social-affective distress (social anxiety, self-derogation) may differentiate the manner by which vulnerability to peer influence operates between males and females. Varying levels of social-affective distress were found to be gender-specific, and may manifest differently among males and females when associated with conformity intentions, applied decision-making skills, and assertive behavior. For example, females reported high levels of social-affective distress related to high conformity intentions, whereas for males this relation was opposite. Second, even though levels of reported decision-making skills were equivalent between gender, the relationship between high decision-making skills and high social anxiety was significant only for males. Last, females reported high levels of self-derogation related to poor assertive behavior, whereas the opposite was true for males. Furthermore, male and female decisions to conform may diminish social-affective distress, yet for females the added benefit of conformity facilitates access to peer group norms (e.g., social support). Whereas for males, resisting conformity (i.e., high assertive behavior) diminishes social support, and may encourage a pattern of social rejection. Perhaps for males, the decision to resist conformity while experiencing social anxiety relates to socialization processes that may influence later psychosocial adjustment (social rejection, at-risk behaviors), manifested as a need to seek social support from other alternative deviant peer groups.

Males and females reported equivalent scores for perceived personal control and attention to social comparison, however, males reported higher levels of conformity than females. As males become more attentive to social comparions they reported higher levels of conformity and lower levels of perceived personal control. For females, personal control was not significantly related to attention to social comparison and conformity intentions, suggesting that increasing levels of attending to social comparisons of styles/dress and conforming to peer influence do not relate to varying levels of perceived personal control. However, for females high levels of social comparison corresponds to high conformity without affecting personal control, as reported by males. Females experiencing high levels of social comparison reported high conformity intentions (compared to males), suggesting that attending to social cues and peer concerns relates to conformity intentions, which in turn assures social support and exposure to peer proscribed standards. Males may perceive heightened attention to social cues and comparisons as threats to personal control and as such respond with greater resistence (high assertiveness and low conformity), whereas for females conformity facilitates social support.

The importance of autonomy, individuation, and peer relations on psychosocial functioning also is evidenced across grades (i.e., age). Seventh and eighth graders reported higher conformity intentions than sixth graders (e.g., Berndt, 1979; Bixenstine et al., 1976; Brown et al., 1986). No doubt the increasing importance of acquiring peer group norms, social acceptance, and developing and maintaining peer relationships appear more critical for older than younger adolescents, the latter who may still depend

on parental relationships for their psychosocial well being. In a related vein, eighth graders reported more perceived personal control than sixth and seventh graders, a finding which has been reported elsewhere (e.g., Nowicki & Strickland, 1973). Finally, sixth and seventh graders reported higher levels of self-derogating thoughts than eighth graders.

Developmentally these patterns support the notion that with increasing age adolescents report more personal control, higher conformity intentions, and lower self-derogation. A mechanism to account for these age differences suggests that conformity allows access to peer group norms and expected social roles, affects subsequent self-evaluations, that together influences psychosocial functioning and the achievement of autonomy and individuation. That is, as youth perceive more control of their environment, and gain social acceptance from the peer group through conformity they report greater social confidence, and fewer self-derogating thoughts than younger adolescents.

There are several limitations associated with this study that are worth noting. First, the present studied relied solely on establishing the internal factorial validity of a multidimensional scale. No effort was made to establish construct or criterion validity through accepted psychometric procedures. Further refinement of the APSS should include establishing correlations with measures of delinquency and well-established measures of susceptibility to assess construct validity through convergent and divergent methods. Inclusion of an extreme contrast group of adolescents with identified psychosocial markers would also enhance criterion validity.

CHAPTER 6

SUMMARY AND PRACTICAL APPLICATIONS

Summary

The purpose of this study is to construct a developmentally appropriate assessment of early adolescent peer susceptibility and examine its dimensional structure through latent variable confirmatory factor analysis.

This study assessed sixth through eighth graders from several public schools in southern New Jersey diversified by grade, gender, ethnicity, and family structure. Focus groups and minimal cued assessment procedures were used to examine the adolescent's reported experiences of their peer relations. This information was then used to help formulate psychological, social, and cognitive constructs reflecting a multidimensional structure of peer susceptibility.

Results of the confirmatory factor analysis support a 7-factor model of adolescent peer susceptibility including dimensions tapping conformity self-efficacy, personal control, social confidence, decision-making skills, assertive behavior, self-derogation, and social comparison. A second higher-order model represented peer susceptibility more parsimoniously with factors reflecting Cognitive and Social Susceptibility.

Findings support the integrity of the measured variables as indicators of the respective constructs. Each observed indicator was internally reliable and stable over time. Composite scales and their respective items demonstrated sufficient variability to discriminate among youth regarding item content, scale means, range, standard deviations, skewness, and kurtosis. Face and factorial validity for the psychosocial

constructs were achieved. Mean gender differences were found for conformity, social confidence, assertive behavior, and self-derogation. Multiple group comparisons by gender highlight specific vulnerabilities to peer influence relating to social-affective distress across conformity intentions, decision-making skills, and assertive behaviors. Relationships between perceived personal control, attention to social comparison, and conformity intentions are discussed. Developmental differences regarding the importance of peer relations and psychosocial functioning across grade (i.e., age) are discussed related to conformity self-efficacy, perceived personal control, and self-derogation.

Results are discussed in terms of modeling a developmentally sound and theoretically appropriate assessment of peer susceptibility. Finally, limitations of this study, applications, and suggestions for future research are discussed.

Practical Applications

The findings of this study have important implications for professionals who work with adolescents in clinical, educational, and research settings. One important finding is that adolescent peer susceptibility is multidimensional and consists of dimensions reflecting interpersonal mastery, social self-efficacy, personal self-control, and self-evaluation (i.e., self-worth).

A multidimensional conceptualization of adolescent peer susceptibility can affect how professionals: (a) interact with adolescents regarding peer-prescribed behaviors and self-evaluations; (b) evaluate intervention and prevention programs for at-risk youth; (c) conceptualize and construct theoretically-grounded prevention curricula based on

competence enhancement; and (d) evaluate individual differences in psychosocial adjustment during adolescence.

Adolescent conformity to deviant peer group norms can provide an opportunity for peer acceptance, positive self-evaluations, and diminish self-rejecting feelings. However, excessive conformity may hinder long-term acquisition of developmentally appropriate interpersonal skills and coping strategies for dealing with psychosocial stress. The inability to cope during this critical period may thwart development of a self-identity that fosters active, productive, and healthy adult role socialization. Professionals working with this age group should recognize that adolescents experience cultural, educational, and social histories that influence their self-evaluations and can predispose them to feelings of rejection, failure, and hopelessness. Peer relations can reflect these histories and provide an important medium from which to gain relevant insight and personal growth.

The potential applications and interventions described across clinical, educational, and research settings are derived from the author's extensive, professional experiences with adolescents. These applications await empirical support. Validation of group and individual interventions can include studies of: (a) criterion validity of the APSS against extreme contrast groups; (b) convergent and discriminate validity with measures of conformity, deviant behavior (e.g., substance use), social skills, and affective distress; and (c) efficacy of group and individual interventions by expected changes (pre-posttest) in targeted APSS domains.

Clinical Setting

Mental health workers in clinical settings can use a multidimensional assessment of peer susceptibility such as the one validated in the present study to appropriately screen high-risk adolescents. Individuals reporting negative self-derogation, high social anxiety, high levels of attention to social comparisons, poor social assertiveness, and low perceived personal control can be channeled into interventions targeting these vulnerabilities before they foster deviant associations.

A second finding from this study highlights the need to focus interventions on interpersonal skills (e.g., assertiveness and applied decision-making) and cognitive self-evaluation (i.e., perceived personal control, self-derogation, social anxiety, and social comparison), which can affect vulnerability to negative peer influence. Interventions focusing on interpersonal skills can utilize cognitive-behavioral strategies targeting social assertiveness and decision-making through social skills training and applied social-problem solving approaches. Strategies to improve social assertiveness include skills training to enhance defense of rights during peer interactions. Specific assertiveness skills include behavioral rehearsal to develop scripts to, "say no", repeat "saying no", "refuse to discuss it anymore", and related strategies that reduce social confrontation. A second area of concern includes decision-making skills, which refer to the ability to gather information, determine whether personal resources exist to tackle a developmental task, and weighing consequences and alternatives of behavior before acting. Youth can be taught to become more assertive in defending personal rights, learn and apply decision-making skills during peer interactions, moderate affective reactions derived

from conflictual peer interactions, and limit generalizability of self-derogating thoughts across situations.

Both social and cognitive skills can be taught and enhanced through modeling, shaping, coaching, role playing, and reverse role playing with other peers. Self-instructional methods (Michenbaum, 1975) can be used to encourage youth to utilize decision-making and assertive skills to help guide subsequent behavior. In addition, strategies utilizing peers interactions can enhance interpersonal skills including: (a) cooperative interactions (e.g., games and activities designed to foster cooperation and interdependence among peers); (b) peer-initiated contacts (e.g., well-adjusted youth engage withdrawn or socially anxious youth in play); (c) peer reinforcement (e.g., peers shape and reinforce appropriate behaviors of targeted youth); and (d) peer modeling (e.g., peers teach targeted students new behaviors through modeling and observational learning). After completion of each strategy, self-appraisals by youth and therapist can provide reinforcement and recognition of skill competencies, enhancement of positive self-evaluations, and detect areas needing improvement. Self-appraisals and self-instructions guided by the therapist can help to diminish social anxiety and negative self-feelings, enhance positive self-beliefs regarding assertive and decision-making skills, and encourage greater personal control. Interventions targeting cognitive self-evaluative processes (self-derogation) can be used in combination with strategies to improve interpersonal skills.

A second therapeutic approach focuses on enhancing adolescents' capacity to regulate emotional consequences of stressful (or perceived stressful) peer relations. This

approach can help limit negative self-beliefs and reduce conformity with deviant groups. The use of self-instructional, emotional-based strategies (Taylor & Aspinwall, 1996) modified to peer interactions, include: (a) self-control, i.e., efforts to regulate feelings (e.g., "I won't feel worthless, just because they don't like me"); (b) distancing, i.e., efforts to detach oneself from the event (e.g., "I didn't let it get me upset, I refused to think about it); (c) positive reappraisal, i.e., efforts to find positive meaning (e.g., "I came out the interaction better than when I went in"); and (d) accepting responsibility (e.g., acknowledge one's role in the problem: "I criticized myself before the event even happened"). When self-instructional methods are augmented with assertiveness and applied problem-solving skills, adolescents can experience positive self-appraisals that enhance self-beliefs pertaining to personal control and reduce distress from peer-related experiences.

A third approach includes focusing on providing external resources that enhance beliefs of personal control. Access to conventional peer networks and social support resources for youth experiencing stress can limit peer-related negative self-evaluation and provide a foundation of positive social support. Such strategies include: (a) teaching youth to access social support, i.e., those people that supply information to the youth that he or she is loved, cared for, and important; (b) enhancing academic, intellectual, artistic, and athletic competencies; and (c) assessing, identifying, and developing skills appropriate to occupational choices.

Overall, clinicians can capitalize on the findings of this study by developing effective strategies to teach adolescents that cognitive comparisons between themselves

and their peers help formulate self-feelings, which in turn influence the decision to conform to peer group standards. The adolescent can be taught to be perceptive and sensitive to: (a) social comparisons that influence self-evaluations; (b) self-evaluations foster affective distress that influence subsequent behaviors (conformity); (c) peer approval is an important goal during adolescence; (d) conformity is one means of obtaining peer approval; (e) the decision to conform to a deviant peer group relates to eliminating negative self-evaluations derived from interactions with conventional peer groups; and (f) individuals have the capacity to improve interpersonal skills, enhance self-evaluations, and change the outcome of negative self-evaluations.

Finally, the APSS can be used as an evaluative tool for existing interventions with withdrawn, rejected, delinquent or aggressive youth, and as a basis for developing new programs that target interpersonal skills and cognitive self-evaluations.

Educational Setting

The APSS can be used to assess the efficacy of existing prevention and intervention programs that target decreasing adolescent peer susceptibility to negative behaviors (e.g., substance use, violence, delinquency). Moreover, assessments of peer susceptibility can form a basis for developing an ecologically valid (and multidimensional) approach for interventions that focus on vulnerability to peer influence.

Similarly, the APSS could be used to monitor the development of students experiencing recurring discipline problems in schools where suspensions, detentions, and other disciplinary measures are not an effective deterrent. Most disciplinary infractions

in school relate to interpersonal conflicts among peers; thus assessments conducted with the APSS can be used to develop a diversion program addressing the psychosocial and cognitive components related to interpersonal conflicts. Examination of individual differences across multiple components of the APSS among high-risk youth can provide a rational basis from which to better understand peer group socialization processes.

Finally, in-service training programs for teachers and administrators can focus on: (a) the integration of cognitive and psychosocial developmental tasks that influence peer susceptibility; (b) peer relations and social comparisons related to self-evaluative processes and its effect on the emerging self-identity; (c) the importance of various facets of conformity during adolescence; and (d) training to recognize peer-related psychosocial deficiencies that warrant a referral to mental health professionals

Research Settting

The social and cognitive dimensions of peer susceptibility explored in the present study form the basis for a psychometrically sound, ecologically valid, and developmentally appropriate assessment of peer susceptibility. Results of this assessment can be useful to identify individual differences that presage deviant behavior. That is, different pychosocial and cognitive processes may relate to various deviant behaviors and the APSS may provide a valid means to understand developmental origins of deviance. If so, researchers can identify the underlying correlates and causes of delinquent behaviors and construct interventions unique to different problem behaviors. The APSS can be used as an evaluative tool to assess the efficacy of rehabilitation programs in addition to many of the behavioral-specific measures that are currently used.

A second application applies to research focusing on withdrawn or socially rejected youth that use sociometric nominations to categorize youth and to assess the efficacy of intervention programs. Sociometric assessments provide little information and little clarity on the dynamics of psychosocial and cognitive vulnerability. Multidimensional assessments such as the APSS need to be used in conjunction with sociometric evaluations to help identify individual differences related to peer susceptibility, to evaluate current intervention programs, and to develop strategies that address the relations between interpersonal skills, affect, and cognitive self-appraisals during peer interactions.

In addition, instruments such as the APSS can be used to examine the role of adolescents' emotional and social responses (e.g., anxiety) to social skill training interventions. The assumption that social skill deficits are causing or maintaining the presenting problem of emotional anxieties needs to be further examined; because it is plausible that self-evaluation may underlie or at least contribute to observed deficits in social skills.

Furthermore, the APSS can better represent normative adolescent development of peer susceptibility to peer influence, as opposed to the current assessments depicting similarities among peers as benchmarks for peer susceptibility. Results from this study underscore the pressing need to standardize social and cognitively-based assessments of conformity to peer related behaviors within a multidimensional framework.

Finally, findings from the present study support the inclusion of memory based assessment strategies (implicit cognitive tasks) to explore adolescent's experiences

related to peer relations across both conventional and deviant behaviors; and individual differences related to ethnicity and gender.

Suggestions for Future Research

The moderate sized sample used for the current study suggests a need for replication with larger samples. The addition of residual covariances in the second-order model may capitalize on chance with small to moderate samples (MacCallum, 1986). Moreover, the statistical reliability of the factors and the significance of their respective parameter loadings is tied to the size of the standard errors, which are sensitive to sample size. Cross-validation with larger, more heterogenous, and more representative samples would attest to the validity of the present findings.

Second, the weak parameter loading for conformity self-efficacy in the second-order model makes it essential to conduct further validity analyses. Reliability for this scale was adequate by common psychometric standards, however, the association between conformity self-efficacy and other scales was low to moderate. Inclusion of additional and psychometrically valid measures of conformity self-efficacy might enhance our understanding of the developmental mechanisms underlying this process.

A third important goal includes establishing criterion validity of the APSS by analyzing relationships between the APSS and established measures of delinquent (deviant) behaviors. In addition, selection of a specific sub-sample of youth who have been identified as at-risk and placed in either juvenile detention, substance rehabilitation, or correctional facilities would represent opportunities to use extreme contrast group methods to examine criterion validity.

A fourth goal involves assessing different age groups (younger and older) than those used in the present study, in order to examine possible age trends. Results would provide researchers with normative and comparative standards by which maturational processes affect various psychosocial and cognitive processes related to conformity and peer susceptibility.

Finally, research should examine responses of the APSS across various ethnic groups, family structures, geographic settings, and socioeconomic levels.

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APPENDIX A

SAMPLE PROMPTS USED IN FOCUS GROUPS

What is peer influence?

How does peer influence work?

Describe some peer influence situations you have been in?

When you are in those situations what are you thinking about?

What things are important to you in making your decision?

How do you decide what to do?

Do others influence your decision, how?

What would happen if you refused to conform?

What do you think about yourself, if you refused to conform?

What would you think about yourself, if you did (did not) conform?

Would the group treat you differently if you did or did not conform?

When you are in those situations what kind of feelings do you have?

Do these feeling affect your decision?

What would happen if you refused to conform?

How would you feel about yourself if you did (did not) conform?

Is there a difference between how you feel about yourself if you did or did not conform?

Why is there a difference?

Why do kids conform to peer influence, why not?

Why are some kids more susceptible to peer influence than others?

Is conformity important for in (adolescents), why?

What types of questions would you write if you wanted to measure conformity?

APPENDIX B

INTRODUCTORY STATEMENT READ TO PARTICIPANTS

Good morning/Good afternoon. My name is Mr. Kosten, I am conducting research at Temple University in Philadelphia to learn about teenagers attitudes and behavior. Your participation today will take the entire class period. Is there anyone who prefers not to participate? When you receive the survey please keep it on your desk and do not start until instructed. Are there any questions? When all students receive the survey, directions are read by the researcher, aloud, and verbatim from the survey:

Researchers are conducting a survey to learn more about attitudes and behavior among teenagers. THIS IS NOT A TEST, DO NOT PUT YOUR NAME ON THIS SURVEY. Your answers are strictly confidential and no information will be given to your parents, teachers, or school officials so please answer all of the questions honestly. We appreciate your help in this survey and hope you enjoy taking part in it. If you have any questions, or don't understand something please RAISE YOUR HAND and we will be glad to help you. We would like you to work fairly quickly, so that you can finish the survey.

APPENDIX C

ADOLESCENT PEER SUSCEPTIBILITY SCALE (APSS)

ADOLESCENT PEER SUSCEPTIBILITY SCALE (APSS)

Researchers are conducting a survey to learn more about attitudes and behavior among teenagers. **THIS IS NOT A TEST, DO NOT PUT YOUR NAME ON THIS SURVEY.** Your answers are strictly confidential and no information will be given to your parents, teachers, or school officials so please answer all of the questions honestly. We appreciate your help in this survey and hope you enjoy taking part in it. If you have any questions, or don't understand something, please **RAISE YOUR HAND** and we will be glad to help you. We would like you to work fairly quickly, so that you can finish the survey.

Directions: Read each sentence and darken the circle that best describes you.

		Very much like me (1)	Quite a bit like me (2)	Like me (3)	A little like me (4)	Not like me at all (5)
1.	Going to the movies because my friends want me to go	○	○	○	○	○
2.	Teasing a new kid in class because it's cool among my friends	○	○	○	○	○
3.	Going to a party because my friends want me to go	○	○	○	○	○
4.	Riding bikes around town because my friends ask me to	○	○	○	○	○
5.	Meeting a group of kids I don't know because my friends want me to	○	○	○	○	○
6.	Giving answers on a test because my friend wants them	○	○	○	○	○
7.	Keeping a lost wallet I found because my friend wants the money	○	○	○	○	○
8.	Playing ball at the park because my friends want me to play	○	○	○	○	○
9.	Joining in on a fight because my friends say I need to	○	○	○	○	○
10.	Going to the mall because my friends ask me to	○	○	○	○	○
11.	Lying because my friends tell me to	○	○	○	○	○
12.	Spreading rumors because my friends say it's funny	○	○	○	○	○

Please continue to answer the questions on the next few pages.

Directions: Read each sentence and fill in the circle that best indicates how much you agree or disagree with each statement.

		Strongly disagree (1)	Disagree (2)	Neither agree or disagree (3)	Agree (4)	Strongly agree (5)
1.	If somebody likes me, it's usually because of the way I treat them	○	○	○	○	○
2.	My friends usually ask me for my ideas	○	○	○	○	○
3.	If there is a problem with my close friends, I can usually fix it myself	○	○	○	○	○
4.	If I have a problem, I can usually solve it myself	○	○	○	○	○
5.	I am usually the one who chooses my friends	○	○	○	○	○
6.	When I am with my friends, I try to make my own decisions	○	○	○	○	○
7.	I often do better socially when I take charge	○	○	○	○	○
8.	When I get what I want its usually because I worked for it	○	○	○	○	○
9.	When I make plans I am almost certain to make them work	○	○	○	○	○
10.	I prefer games requiring pure skill than games involving some luck	○	○	○	○	○
11.	I can learn almost anything if I set my mind to it	○	○	○	○	○
12.	My accomplishments are entirely due to my hard work and ability	○	○	○	○	○

Please continue to answer the questions on the next few pages.

Directions: Please fill in the circle that best indicates how much you agree or disagree with each statement for yourself.....

		Strongly disagree (1)	Disagree (2)	Neither agree or disagree (3)	Agree (4)	Strongly agree (5)
1.	I'm concerned whether people regard me a success or failure	O	O	O	O	O
2.	I find it hard to start a conversation when I meet new people	O	O	O	O	O
3.	When I'm in a group of people, I have difficulty thinking of the right things to say	O	O	O	O	O
4.	I often worry about what other people think of me	O	O	O	O	O
5.	I am concerned about how well I get along with people	O	O	O	O	O
6.	I often feel shy or self-conscious	O	O	O	O	O
7.	When I enter a room where other people are, I feel anxious or jittery	O	O	O	O	O

Please continue to answer the questions on the next few pages.

Directions: Indicate on a scale from 1 to 5 how often you do the following in each of the situations below.

		Never (1)	Almost never (2)	Sometimes (3)	Almost always (4)	Always (5)
1.	**When I have a problem or need to make an important decision I:**					
a.	Get the information needed to make the best choice	O	O	O	O	O
b.	Stop before doing anything to be sure I understand what the problem or decision is	O	O	O	O	O
c.	Think of as many possible choices or ways of solving the problem as I can	O	O	O	O	O
d.	Think about what information is necessary for dealing with the problem	O	O	O	O	O
e.	Think about choices that exist before I take any action	O	O	O	O	O
f.	Think about which of the alternatives is best	O	O	O	O	O
g.	Think about the possible consequences of each alternative	O	O	O	O	O

Please continue to answer the questions on the next few pages.

Directions: Darken the circle that best describes how easy or hard it is for you in each situation.

		Very difficult (1)	Difficult (2)	Neither difficult or easy (3)	Easy (4)	Very easy (5)
1.	Tell a person you like that their behavior bothers you	○	○	○	○	○
2.	Turn down a request from a friend to borrow money	○	○	○	○	○
3.	Disagree with your friends	○	○	○	○	○
4.	Request that your friend return what she or he borrowed from you	○	○	○	○	○
5.	Express an opinion that is different than your friends	○	○	○	○	○
6.	Tell a friend when they did something wrong	○	○	○	○	○
7.	Say "no" to a friend, when they ask you to do something that you don't want to do	○	○	○	○	○

Please continue to answer the questions on the next few pages.

Directions: Read each statement and fill in the circle that best indicates your feelings.

		Always true (1)	Generally true (2)	Sometimes true (3)	Generally not true (4)	Always not true (5)
1.	I wish I could have more respect for myself	O	O	O	O	O
2.	On the whole, I am satisfied with myself	O	O	O	O	O
3.	I feel I do not have much to be proud of	O	O	O	O	O
4.	I'm inclined to feel I am a failure	O	O	O	O	O
5.	I take a positive attitude toward myself	O	O	O	O	O
6.	I feel pretty happy about my life	O	O	O	O	O
7.	At times I think I'm no good at all	O	O	O	O	O
8.	I feel excited about what I've done	O	O	O	O	O
9.	I certainly feel useless at times	O	O	O	O	O
10.	I think I'm a productive person	O	O	O	O	O

Please continue to answer the questions on the next few pages.

Directions: For the next few items, darken the circle that best describes you.

		Always true of me (1)	Generally true of me (2)	Somewhat true of me (3)	Generally not true of me (4)	Not true of me at all (5)
1.	If everyone else in a group is behaving a certain way, it must be the way to behave	O	O	O	O	O
2.	I avoid wearing clothes that are not in style	O	O	O	O	O
3.	At parties I behave in a way that makes me fit in	O	O	O	O	O
4.	I pay attention to how others react to me, in order to avoid being out of place	O	O	O	O	O
5.	I learn slang words from others and use them as part of my vocabulary	O	O	O	O	O
6.	I pay attention to what other kids are wearing	O	O	O	O	O
7.	The slightest look of disapproval by others is enough to make me change my behavior	O	O	O	O	O
8.	It's important to fit in to the group I'm with	O	O	O	O	O
9.	My behavior depends on how I feel others wish me to be	O	O	O	O	O
10.	I keep up with clothing style changes by watching what others wear	O	O	O	O	O
11.	I pay attention to how my friends act	O	O	O	O	O
12.	I often compare myself to my friends	O	O	O	O	O
13.	I often look at others to gauge how cool I am	O	O	O	O	O

Please continue to answer the questions on the next and last page.

What is your date of birth? _____/____/_____
Month Date Year

Directions: Please circle the number to indicate your answer for each question below.

1. Are you?

   1. Male
   2. Female

2. What grade are you in?

   1. 6
   2. 7
   3. 8

3. Which category best describes you?

   (Pick only one)
   1. Latino/Hispanic
   2. Black/African-American
   3. Asian
   4. Native American/American Indian
   5. White/Non-Hispanic
   6. Other (Please Specify) _____

4. Who do you live with most of the time?

   1. Mother & Father
   2. Mother only survey
   3. Father only
   4. Mother & Stepfather
   5. Father & Stepmother
   6. Someone else, who? _____

Thank you for completing the Survey

APPENDIX D

SUMMARY DESCRIPTIVE STATISTICS AND PSYCHOMETRIC PROPERTIES FOR ADOLESCENT PEER SUSCEPTIBILITY ITEMS

Table D-1. Summary Descriptive Statistics and Psychometric Properties for Adolescent Peer Susceptibility Items

Composite Scales and Measured Items	M	ITC[a]	SD	Skew	Kurtosis
Conformity Self-Efficacy (12)	29.07		9.39	.51	-.13
Going to the movies because my friends want me to do	3.00	.83	1.34	-.08	-1.20
Teasing a new kid in class because it's cool among my friends	1.74	.48	1.06	1.58	1.87
Going to a party because my friends want me to go	3.09	.62	1.34	.00	-1.18
Riding bikes around town because my friends ask me to	3.06	.43	1.41	-.03	-1.28
Meeting a group of kids I don't know because my friends want me to	2.35	.49	1.31	.68	-.68
Giving answers on a test because my friend wants them	2.03	.53	1.26	1.10	.09
Keeping a lost wallet I found because my friend wants the money	1.54	.45	1.12	2.11	3.27
Playing ball at the park because my friends want me to play	3.17	.48	1.37	-.03	-1.26
Joining in on a fight because my friends say I need to	1.82	.52	1.29	1.49	.94
Going to the mall because my friends ask me to	3.55	.51	1.39	-.47	-1.09
Lying because my friends tell me to	1.83	.58	1.16	1.42	1.11
Spreading rumors because my friends say it's funny	1.85	.55	1.21	1.39	.89

Table D-1. (continued)

Composite Scales and Measured Items	M	ITC[a]	SD	Skew	Kurtosis
Personal Control (12)	44.40		6.44	-1.35	5.98
If somebody likes me, it's usually because of the way I treat them	3.87	.24	1.08	-1.07	.67
My best friends usually ask me for my ideas	3.56	.30	1.08	-.73	-.06
If there is a problem with my close friends, I can usually fix it myself	3.46	.26	1.16	-.45	-.64
If I have a problem, I can usually solve it myself	3.38	.23	1.17	-.43	-.65
I am usually the one who chooses my friends	4.00	.37	1.13	-1.15	.63
When I am with my friends, I try to make my own decisions	3.85	.29	.97	-.76	.23
I often do better socially when I take charge	3.22	.27	1.20	-.26	-.73
When I get what I want, its usually because I worked for it	3.74	.31	1.08	-.75	-.02
When I make plans, I am almost certain to make them work	3.72	.32	.93	-.63	.20
I prefer games requiring pure skill than games involving some luck	3.38	.22	1.17	-.29	-.68
I can learn almost anything if I set my mind to it	4.28	.35	.96	-1.57	2.32
My accomplishments are entirely due to my hard work and ability	4.06	.39	1.01	-1.10	.79

Table D-1. (continued)

Composite Scales and Measured Items	M	ITC[a]	SD	Skew	Kurtosis
Social Confidence (7)	22.01		5.58	-.21	-.30
I'm concerned whether people regard me a success or failure	3.31	.32	1.14	-.32	-.60
I find it hard to start a conversation when I meet new people	3.12	.47	1.36	-.15	-1.27
When I'm in a group of people, I have difficulty thinking of the right things to say	2.89	.54	1.30	.09	-1.17
I often worry about what other people think of me	3.35	.50	1.32	-.32	-.85
I am concerned about how well I get along with people	3.48	.40	1.14	-.54	-.46
I often feel shy or self-conscious	3.02	.51	1.39	-.11	-1.28
When I enter a room where other people are, I feel anxious or jittery	2.82	.36	1.23	.08	-.97
Decision-Making (7)	24.38		5.20	-.45	1.02
Get the information needed to make the best choice	3.42	.49	.96	-.12	.11
Stop before doing anything to be sure I understand what the problem or decision is	3.49	.52	1.03	-.30	-.24
Think of as many possible choices or ways of solving the problem as I can	3.49	.55	1.10	-.37	-.43
Think about what information is necessary for dealing with the problem	3.39	.57	1.04	-.24	-.42
Think about choices that exist before I take any action	3.48	.57	1.07	-.29	-.40
Think about which of the alternatives is best	3.59	.56	1.11	-.46	-.41
Think about possible consequences of each alternative	3.56	.51	1.17	-.42	-.60

Table D-1. (continued)

Composite Scales and Measured Items	M	ITC[a]	SD	Skew	Kurtosis
Assertive Behavior (7)	24.58		5.29	-.46	.15
Tell a person you like that their behavior bothers you	2.92	.41	1.27	.06	-1.04
Turn down a request from a friend to borrow money	3.10	.40	-1.28	-.08	-1.01
Disagree with your friends	3.62	.48	1.17	-.58	-.52
Request that your friend return what she or he borrowed from you	3.78	.46	1.14	-.84	-.09
Express an opinion that is different from your friends	3.76	.48	1.11	-.75	-.06
Tell a friend when they did something wrong	3.55	.48	1.13	-.56	-.47
Say "no" to a friend, when they ask you to do something that you don't want to do	3.84	.46	1.23	-.88	-.23
Self-Derogation (10)	24.42		7.16	.37	.23
I wish I could have more respect for myself	3.06	.28	1.30	.00	-.96
On the whole, I am satisfied with myself	2.47	.48	1.10	.50	-.29
I feel I do not have much to be proud of	2.23	.56	1.22	.86	.21
I'm inclined to feel I am a failure	2.12	.52	1.23	.82	-.39
I take a positive attitude toward myself	2.32	.54	1.14	.62	-.31
I feel pretty happy about my life	2.30	.54	1.24	.66	-.53
At times I think I'm no good at all	2.55	.51	1.20	.36	-.63
I feel excited about what I've done	2.27	.37	1.11	.61	-.24
I certainly feel useless at times	2.67	.49	1.19	.32	-.68
I think I'm a productive person	2.40	.48	1.12	.60	-.09

Table D-1. (continued)

Composite Scales and Measured Items	M	ITC[a]	SD	Skew	Kurtosis
Attention to Social Comparison (13)	38.65		10.10	-.10	.12
If everyone else in a group is behaving a certain way, it must be the way to behave	2.48	.45	1.19	.41	-.64
I avoid wearing clothes that are not in style	3.43	.33	1.37	-.47	-.99
At parties I behave in a way that makes me fit in	3.25	.51	1.24	-.23	-.84
I pay attention to how others react to me, in order to avoid being out of place	3.19	.43	1.19	-.18	-.75
I learn slang words from others and use them as part of my vocabulary	3.07	.47	1.33	-.08	-1.12
I pay attention to what kids are wearing	3.12	.59	1.30	-.14	-1.05
The slightest look of disapproval by others is enough to make me change my behavior	2.56	.55	1.24	.39	-.78
It's important to fit in the group I'm with	3.09	.58	1.29	-.13	-1.00
My behavior depends on how I feel others wish me to be	2.60	.42	1.28	.45	-.51
I keep up with clothing style changes by watching what others wear	3.08	.67	1.30	-.06	-1.06
I pay attention to how my friends act	3.32	.50	1.23	-.34	-.78
I often compare myself to my friends	2.98	.54	1.27	-.06	-1.00
I often look at others to gauge how cool I am	2.54	.55	1.30	.45	-.83

Note. N = 772. Number in parentheses is number of items used to comprise scale.
[a]ITC = Item-Total Correlation.